

Ideas from IDS: Graduate Papers from 2018/19

August 2020

Institute of Development Studies (ed.)

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Institute of Development Studies' MA students, 2018/19.

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Notes on Contributors

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Atika Suri Fanani holds a master's degree in Climate Change, Development and Policy from the School of Global Studies, the Science Policy Research Unit and IDS, University of Sussex. Prior to this, she worked with the French Development Agency in Jakarta, Indonesia, managing projects in the sectors of energy and water and sanitation, as well as in communications. With the knowledge she has built through her master's degree, she is now looking to re-engage in international development focusing on climate policy, climate finance, and energy policy.

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Theresa Jacobs holds a master's degree in Development Studies from IDS, University of Sussex. Her research focuses on smallholder agriculture development in the People's Republic of China. During her time at IDS, she investigated how Chinese civil society organisations manoeuvre in the one-party state in order to reform rural policy and bring about more inclusive agriculture development. She is working on becoming a licensed farmer in Switzerland and then will return to China again to work alongside smallholders.

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Takeshi Suzuki holds a master's degree in Poverty and Development from IDS, University of Sussex. Previously, he worked as a programme officer in the Japan International Cooperation System. After studying at IDS, Takeshi held an internship at the United Nations High Commissioner for Refugees and at the United Nations Children's Fund. His academic interest lies in protecting children and women from poverty and ensuring equal opportunities for them.

Abbreviations

ACIAR	Australian Centre for International Agricultural Research
BCC	behavioural change communication
BF	breast feeding
CCP	Chinese Communist Party
CEPA	Centre for Poverty Analysis [Sri Lanka]
CGGC	Center on Globalization, Governance & Competitiveness [USA]
CIMMYT	International Maize and Wheat Improvement Centre [Mexico]
CMAM	Community Management of Acute Malnutrition
CRD	climate-resilient development
CRGE	Climate Resilient Green Economy [Ethiopia]
CRS	Climate Resilience Strategy [Ethiopia]
CSA	climate-smart agriculture
CSR	corporate social responsibility
DAC	Development Assistance Committee
DDR	disaster risk reduction
DFID	Department for International Development [UK]
DRR	disaster risk reduction
DWCD	Department of Women and Child Development [India]
EiE	Education in Emergencies
ENSO	El Niño Southern Oscillation
EU	European Union
FAO	Food and Agriculture Organization [Italy]
FCVAS	fragile, conflict-, and violence-affected states
GDP	gross domestic product
GES	Green Economy Strategy [Ethiopia]
GMB	Grain Marketing Board [Zimbabwe]

GoE	Government of Ethiopia
GTP	Growth and Transformation Plan
HABP	Household Asset Building Programme [Ethiopia]
HAZ	height-for-age z-scores
HLF	High Level Forum on Aid Effectiveness
ICDS	Integrated Child Development Services
IGAD ICPAC	Intergovernmental Authority on Development Climate Prediction and Applications Centre [Kenya]
ILO	International Labour Organization [Switzerland]
ILRI	International Livestock Research Institute [Kenya]
IMF	International Monetary Fund [USA]
IP	intellectual property
IPCC	Intergovernmental Panel on Climate Change [Switzerland]
IRENA	International Renewable Energy Agency [United Arab Emirates]
IYCF	infant and young child feeding
K4D	Knowledge, Evidence and Learning for Development
LRA	Lord's Resistance Army [Uganda]
LTTE	Liberation Tigers of Tamil Eelam [Sri Lanka]
LVC	La Via Campesina [Indonesia]
MoFED	Ministry of Finance and Economic Development [Ethiopia]
MST	Movimento dos Trabalhadores Sem Terra [Landless Workers' Movement, Brazil]
NFHS	National Family Health Survey
NGO	non-governmental organisation
NIE	National Institute of Education [Sri Lanka]
NREGA	National Rural Employment Guarantee Act [India]
NRHM	National Rural Health Mission [India]
NSC	North–South Cooperation

ODF	open defecation free
OECD	Organisation for Economic Co-operation and Development [France]
OHSNP	Odisha Health Sector and Nutrition Plan [India]
PDS	Public Distribution System
PPP	purchasing power parity
PRC	People's Republic of China
PSNP	Productive Safety Net Programme [Ethiopia]
R&D	research and development
RAIN	Realigning Agriculture for Improved Nutrition [Zambia]
ROSA	Regional Office for South Asia [Nepal]
SACCO	savings and credit cooperative
SAP	Structural Adjustment Programme
SARNET	South Asia Research Network [India]
SC	scheduled caste
SDGs	Sustainable Development Goals
SMF	Smallholder Model Farmer
SSC	South–South Cooperation
SSEC	South Sudan Education Cluster
ST	scheduled tribe
STEPS	Social, Technological and Environmental Pathways to Sustainability
ToC	Theory of Change
UIS	Institute for Statistics
UNCCS	United Nations Climate Change Secretariat [Germany]
UNCTAD	United Nations Conference on Trade and Development [Switzerland]
UNDP	United Nations Development Programme [USA]

UNESCO	United Nations Educational, Scientific and Cultural Organization [France]
UNGA	United Nations General Assembly [USA]
UNICEF	United Nations Children's Fund [USA]
UNOSSC	United Nations Office for South-South Cooperation [USA]
UNSC	United Nations Security Council [USA]
USDL	United States Department of Labor
WASH	Water, Sanitation, and Hygiene
WFP	World Food Programme [Italy]
WHO	World Health Organization [Switzerland]
WHZ	weight-for-height z-scores
WTO	World Trade Organization [Switzerland]
ZimCLIFS	Integrating Crops and Livestock for Improved Food Security and Livelihoods in Rural Zimbabwe

Introduction: Food as a Multidimensional Development Issue

Lidia Cabral

This is the third edition of *Ideas from IDS*, our publication featuring student essays, now from the 2018/19 academic year. This is the first time this publication has a thematic focus: food.

Food is a prominent development issue that concerns hunger, malnutrition, inequality, environmental sustainability, power and politics, social justice, and cultural identity. It is about the trade-offs that this era of globalisation has brought about, such as ensuring food security for all, while protecting the environment. It is about striking paradoxes such as the concurrence of under and overnutrition, sometimes in the same country or region, which reflects pervasive social inequalities and power imbalances in the food system.

Food is central to the pursuit of sustainable development and aspects related to food are relevant to most, if not all, United Nations Global Goals for Sustainable Development – beyond Goal 2 which focuses specifically on reducing hunger. Food is a key dimension of poverty and inequality; it concerns responsible production and consumption in the economy; it is related to the management of natural resources and preservation of the environment, on land and in water; it is a gender issue that relates to social roles such as care and cooking, and to children's health and development.

As this publication illustrates, postgraduate teaching at the Institute of Development Studies (IDS) and the University of Sussex reflects the significance of food in global development and its relevance across disciplines and fields of study. This publication compiles a selection of ten essays written by students undertaking six different postgraduate courses: MA Development Studies; MA Gender and Development; MA Globalisation, Business and Development; MA Poverty and Development; MSc Climate Change, Development and Policy; and the new MA Food and Development. The latter, specifically, encapsulates the growing significance of food studies in research and teaching at Sussex. This new course, which has just celebrated the graduation of its first cohort of students, has recently been listed by Devex amongst the **top 20 unique courses and programmes in global development**.

The selection of essays in this issue was based both on their thematic focus and analytical content. We also sought to capture the different interests and ways of thinking and writing of our diverse student community, which this publication gives us an opportunity to celebrate. We also ensured a balanced representation of gender and nationalities. The ten essays gathered here were submitted by our students as part of the assessed work of nine modules taught at IDS: Aid and Poverty; Business as a Development Actor; Climate Change and Development;

Climate-Resilient Development; Debating Poverty and Vulnerability; Food Politics and Development; Nutrition; Public Financial Management; and Sustainability and the Policy Process. These essays, through their attention to the sociocultural and political dimensions of food, in their demonstration of the interrelationships between interventions and social process, and in their examination of the complexity and multidimensionality of food and sustainability issues, affirm the importance of considering food as a fundamental dimension of development studies.

The first two essays tackle aspects of nutrition. Suzuki links nutrition to care and argues that addressing the basic causes of malnutrition demands a gender perspective. His proposed framework for understanding care, gender, and nutrition is applied to the case of Zambia's Realigning Agriculture for Improved Nutrition programme, which assists farmers and provides support related to behaviour change communication (for improved hygiene and food utilisation). This programme's disappointing impact on nutrition is explained by the lack of attention to women's workload and lack of empowerment. Suzuki argues that context-specific gender norms, violence, and HIV prevalence affecting women are key in explaining the pervasiveness of malnutrition and concludes that a stronger focus on gender is needed.

Sharma also considers aspects of care and malnutrition. She takes us to Odisha, India, where child undernutrition is pervasive, to discuss why government interventions to improve sanitation have failed to tackle child undernutrition. In order to be successful, she explains, sanitation needs to be combined with other interventions related to hygienic behaviour and cultural practices. Like Suzuki, Sharma highlights the social and cultural dimensions of nutrition – she notes, for example, how open defecation is a culturally embedded practice. She also emphasises the intersectionality of exclusion, where caste and gender add up to challenge access to clean water and sanitation by vulnerable groups, such as *dalit* women.

Government intervention challenges are also the focus of two further essays in this issue. Lo looks at school-feeding programmes for food and nutrition security, focusing on the context specificities facing fragile, conflict, and violence-affected states. She critically examines two school-feeding interventions in the conflict-affected Northern and Eastern Provinces of Sri Lanka, and highlights the contextual barriers hampering effective implementation. She concludes that, given the peculiarity of post-conflict settings, in order to maximise the effectiveness and ensure the sustainability of school-feeding programmes, it is imperative to build in community engagement and adopt a holistic programming approach.

Jacobs too considers government intervention but this time in relation to the taxation of agriculture in China. Moving on from the focus on food security and nutrition, her paper draws attention to the significance of agriculture in internal state bureaucracy and in state–citizen relations. The abolishment of a regressive agriculture tax (based on land area and grain production) may be welcomed from an inequality viewpoint, but this policy intervention is, according to Jacobs' analysis, also about bureaucratic politics, central state control over local public finances, and social stability in rural areas where farmers are a key constituency.

The politics of food come up again strongly, in a different guise, in the essay by Hopson. He discusses popular mobilisation around food, looking at modern food riots and the backlash to neoliberalism. Hopson considers specifically the influence of the transnational peasants' network La Via Campesina and how it has mobilised global support in opposition to the dominant 'corporate food regime'. He argues that 'policies that undermine the basic rights of the population to provision themselves at a culturally and nutritionally acceptable level have provided a touchstone for the global solidarity we see today'. This globalised action for justice is likely to endure for as long as the corporate regime continues to generate inequalities in the global food system.

Three essays engage with different aspects of environmental sustainability related to food. Moosa takes issue with the claim made by policymakers and climate activists that climate change will increase the incidence of violent conflict. Equipped with a political ecology approach and using the case of water scarcity in post-war Northern Uganda, as experienced by the Acholi people, he argues that the relationship between climate change, scarcity, and violent conflict is neither straightforward, nor unidirectional. He discusses how climate-related water scarcity is one of many causes of armed conflict and calls for a focus on multiple vulnerabilities to climate variability and uncertainty, as experienced by the Acholi's subsistence economy. He concludes that it is imperative to explore how conflict influences scarcity in the context of a changing climate, with a focus on vulnerability, and to remain wary of simplistic causality relations between complex variables.

Fanani unpacks and critiques the notion of climate-resilient development. She focuses on Ethiopia, a country where climate change is visible in the recurrent extreme weather events that directly impact food production and the livelihoods of the poorest. She considers government initiatives to address climate change, supported by international aid agencies, and how resilience is framed under these. She argues that these initiatives are top-down and driven by international experts,

rather than people's experiences on the ground. They therefore fail to capture social, religious, cultural, and political aspects of climate change adaptation and resilience, which compromises their effectiveness. People's understandings of resilience in farming communities concern access to land, and ownership of livestock and means of transportation, which contrasts with the 'scientific' perspectives highlighting issues such as climate-smart irrigation technology and crop switching. She concludes that different understandings of vulnerability result in different views on climate-resilient development.

The third essay engaging with environmental sustainability reviews the biofuel debate in the context of Sierra Leone. Compton draws on policy process literature and the 'pathways to sustainability' framework to consider the positions of different stakeholders in the debate, interests at stake, and narratives deployed. She argues that the dominant, government-led narrative on biofuels fails to consider the complex livelihood dynamics and the needs of the local farming population. Its primary assumption is that biofuels will encourage growth and promote jobs and that these gains will gradually 'trickle down' to the population. This, she claims, ignores ongoing evictions of smallholder farmers and job losses and reinforces a singular vision of agricultural progress. The dominant narrative also overlooks the struggles of local populations over land and conflict with local elites and biofuel investors.

Moving the focus down to southern Africa, Coupland engages with the notion of value chain upgrading, in relation to small-scale maize production in Zimbabwe. She characterises the structure of this value chain and finds that upgrading is unlikely to lead to income increases for small-scale farmers, as they are captive suppliers in a quasi-hierarchical chain structure, with the government's buying entity as the single buyer. Coupland analyses different upgrading options, related to the product (e.g. using alternative maize varieties; milling) and process (e.g. planting later; mechanising). She concludes that some product upgrades might help farmers create new products for new markets, such as livestock feed. She notes, however, that this will not necessarily result in more robust and resilient livelihoods, because of economic uncertainty, lack of cash liquidity, and rapid currency devaluation in Zimbabwe.

The final paper in this issue engages with the notion of South–South cooperation, considering its discursive nature, geopolitics, and competing interests, for providers and recipients. Focusing on agricultural cooperation between Brazil and African countries, Murayama argues that while the Brazilian government emphasises the moral dimension of its South–South cooperation, geopolitics and economic interests drive agricultural projects.

He illustrates the dualistic nature of this cooperation in terms of agrarian models (commercial agribusiness versus small-scale family farming) on offer from Brazil, with their inherent contradictions. Unless African governments draw on these models in a balanced way, the outcome may be unjust distribution of resources, aggravating underdevelopment and poverty in rural areas.

The diversity of themes, analytical frames, geographical foci, and levels of analysis represented in this issue reflect the multidimensional nature of food as a development topic. This is an encouragement to engage further with students and the wider academic community across IDS and Sussex on debates, studies, and research on food and development.

Lidia Cabral

Research Fellow and co-convenor of MA Food and Development
Institute of Development Studies

Why is the Understanding of Gender Dynamics Important for the Understanding of Nutrition?

Takeshi Suzuki

1. Introduction

Malnutrition has been considered as an international issue to be solved as it is mentioned in the set of nutrition-related goals within the Sustainable Development Goals (SDGs); SDG target 2.1 to end hunger and SDG target 2.2 to end all forms of malnutrition (FAO *et al.* 2018). With the efforts of many actors, improvements have been seen, such as in the reduction of stunting among children in a global context (UNICEF and WHO 2017). However, severe malnutrition status still remains globally and mainly in developing countries; for example, about 149 million and 49 million children under five years of age respectively still face stunting and wasting (UNICEF, WHO, IBRD and WB 2019). In order to improve the situation, it is necessary to understand the combinations of the complex causes of malnutrition as the United Nations Children's Fund (UNICEF) has identified (UNICEF 1990), and understanding these causes will lead to a better understanding of nutrition overall.

Regarding the causes of malnutrition, gender and care are crucial factors, and care is deeply related to gender; therefore, understanding gender will lead to a better understanding of nutrition. Current research has examined the correlations between gender and immediate and underlying causes including care (Smith *et al.* 2003; UNICEF 1990; van den Bold, Quisumbing and Gillespie 2013). However, there is not much empirical research on the influence of gender factors on the basic causes. Therefore, this paper will comprehensively review the current concept of the causations of malnutrition and the relationship between gender, care, and nutrition. By examining the existing concepts, this paper will formulate a conceptual framework using the intra-household approach.

Regarding the case study, the paper will analyse an agricultural intervention programme to explore the process of its impact on women's empowerment, care, and nutrition. Consequently, the study will pinpoint the potential reasons for poor impacts on nutrition outcomes by exploring the gender factor in relation to the basic causes of malnutrition such as the social and cultural context. In conclusion, the paper will point out the importance of the gender factor in understanding nutrition, and will propose that gender dynamics regarding the basic causes of malnutrition could be preventing improvements in malnutrition outcomes.

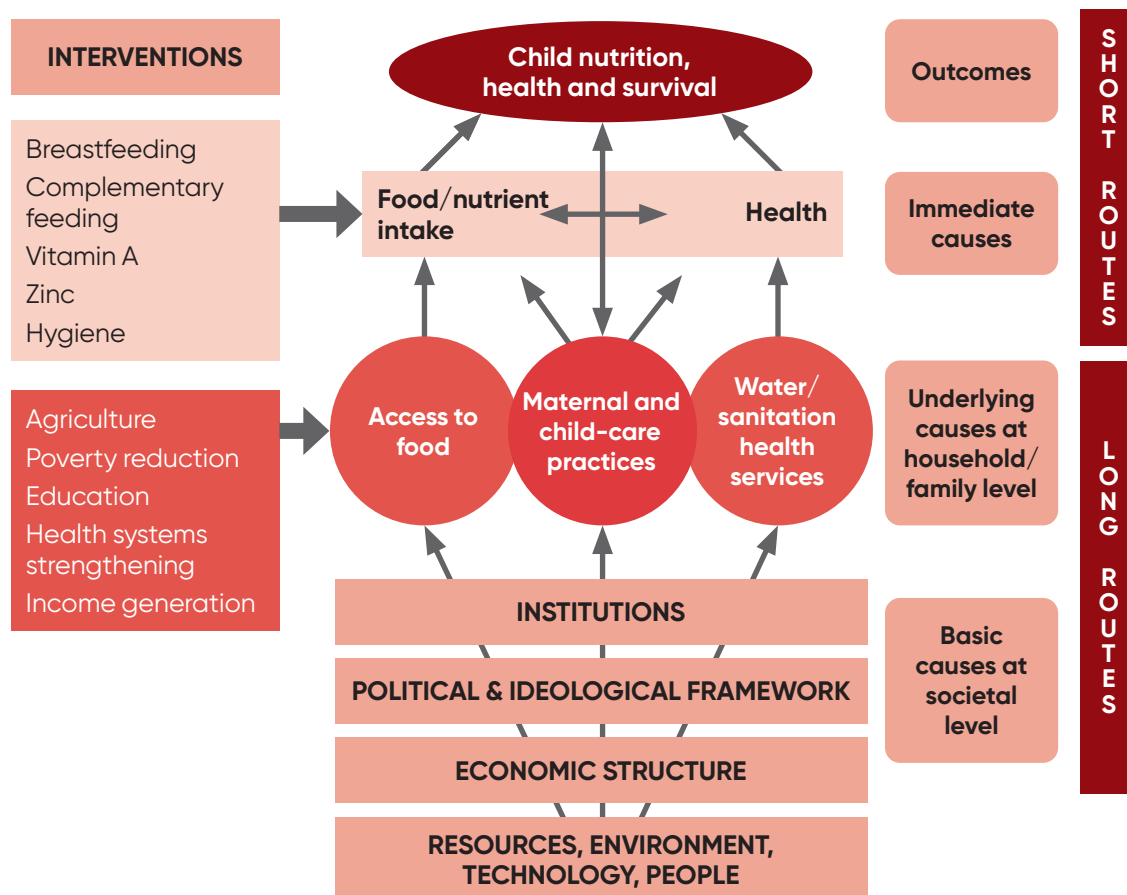
2. Literature review

Malnutrition is a serious physiological condition caused by deficiencies or excess of energy and/or nutrient needs such as micronutrients (e.g. vitamins and minerals) and macronutrients (e.g. proteins, carbohydrates, and fats) (FAO 2015; Pridmore and Hill 2009). Major symptoms of malnutrition are over-nutrition, undernutrition, and micronutrient deficiencies. Over- and undernutrition are basically caused by either excessive or too little food intake against nutrient requirements. Micronutrient deficiency is caused by an inadequate intake of it (FAO 2015). Consequently, these symptoms can lead to 'wasting (low weight-for-height), stunting (low height-for-age), and underweight (low weight-for-age)' (*ibid.*: 4). More specifically, child malnutrition is a severe problem because it threatens a child's entire life by influencing their brain development and cognitive skills, and can lead to weak immunity or even death (UNICEF 2013).

2.1 The UNICEF conceptual framework

In order to analyse the causation of malnutrition, UNICEF (1990, 2013) developed its own conceptual framework by dividing causes into three types: immediate causes, underlying causes, and basic causes. The framework illustrates the process and causation of child undernutrition. Based on this conceptual framework, Ruel (2008) combines the necessary interventions to address the immediate and underlying causes, and suggests the necessity of tackling these causes from a long-term perspective rather than a short-term perspective (see Figure 2.1). UNICEF's conceptual framework has been acknowledged as an important factor to help aid understanding and effectively address the causes of malnutrition (Pridmore and Hill 2009).

Figure 2.1 Conceptual framework for child malnutrition



Source: Ruel (2008). © United Nations Standing Committee on Nutrition.

2.2 The relationship between care and nutrition

As can be seen in the UNICEF conceptual framework, maternal and childcare practices can be considered as a core explanatory factor for malnutrition because it affects both immediate causes. In addition, the care factor is heavily affected by women's status in terms of nutrition (Engle, Menon and Haddad 1999; UNICEF 1990). Care is the practice of caregivers which affects the nutrition, health, and cognitive and psycho-social development of children (Engle *et al.* 1999). Care consists of six activities which are practised by their caregivers such as: care for women; feeding, including breastfeeding; psycho-social stimulation of the children and support; food preparation; hygiene practice; and care for children during illness (*ibid.*). These care availabilities depend on the available resources in the household such as the caregivers' education, time, income, and so on (*ibid.*). It is also reported that the main caregivers are still usually women, especially in the most developing countries (van den Bold *et al.* 2013).

However, it is acknowledged that there are different resource availabilities due to the gender factor. Therefore, gender will be a crucial factor to improve care which is an immediate cause of malnutrition.

2.3 The relationship between gender and malnutrition

Based on the previous discussion, women's availability of resources is crucial for the care factor. In order to make more resources available for women, it is noted that improvements in women's status are necessary because it leads to improvements in children's nutrition with both direct (childcare practice) and indirect (women's nutrition status) improvement (Smith *et al.* 2003). Smith *et al.* (2003) define women's status as a power relative to men in the household, such as 'weaker control over household resources, tighter time constraints' (xi). Based on this definition, improving women's status can be thought of as women's empowerment (Kabeer 1999). Although there is no universal definition of women's empowerment, generally the proxy measurement considers factors such as women's household decision-making, control over resources, mobility, being subject to violence from partners, level of education, and paid employment (van den Bold *et al.* 2013). These proxy are summarised as women's bargaining power which is a power to make decisions on intra-household resource allocation (Allendorf 2007; Beegle, Frankenberg and Thomas 2001; Doss 2013). This intra-household approach will be used to capture the process of women's empowerment within the case study.

As has been discussed, a clear linkage can be seen between care and gender factors and the importance of women's empowerment for malnutrition. This paper will examine the process of impact of the agricultural interventions aimed at improving nutrition status by improving care practices and women's empowerment. By considering the case study, this paper will explore the impact of the gender factor on the basic causes of malnutrition to shed light on its dynamic influence.

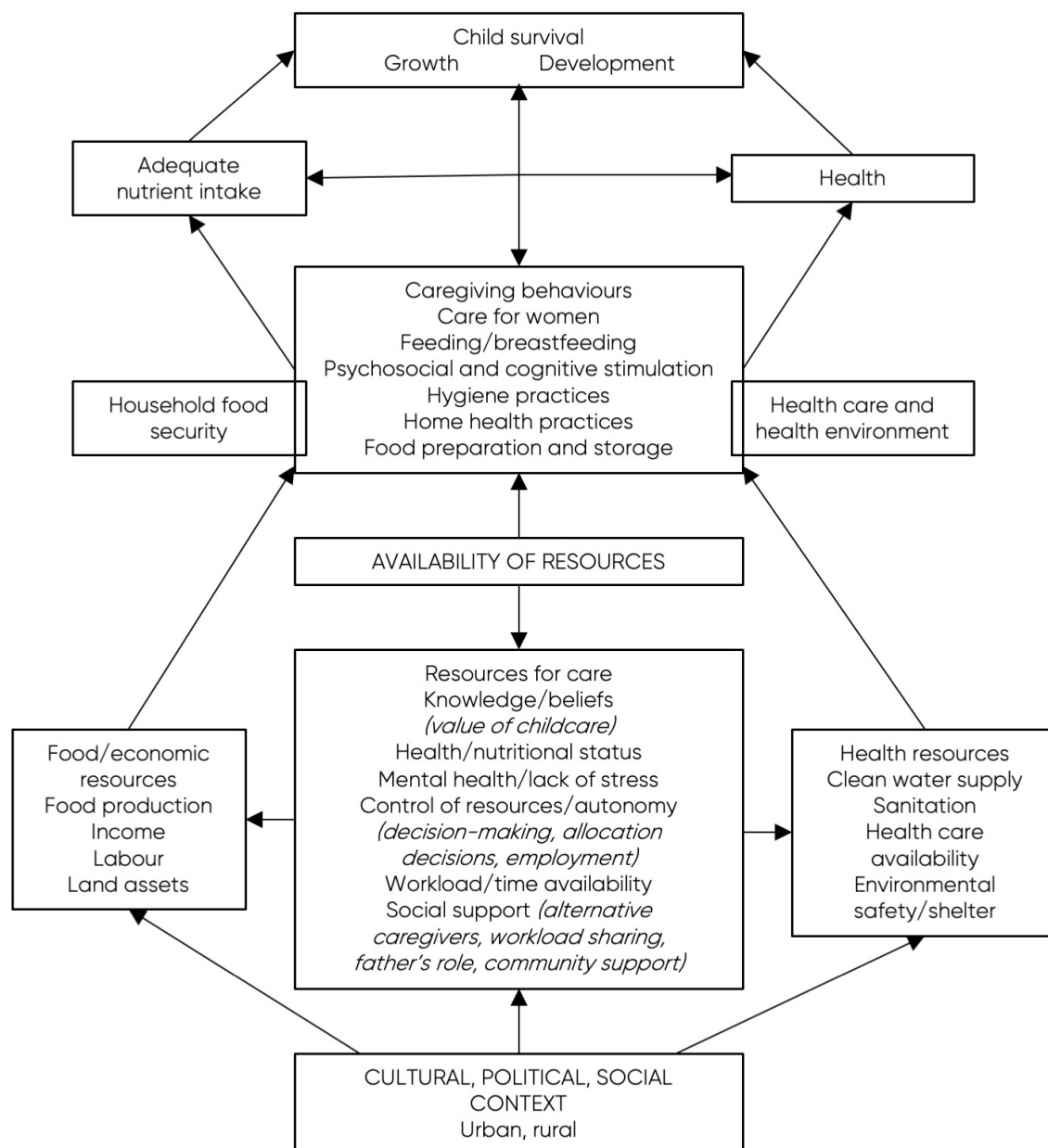
3. Analysis of the case study

3.1 Lens to look at the case study

The lens used in this study is an adapted and developed UNICEF (1990) conceptual framework in order to see in more detail the relationship between care and nutrition outcomes (Bhagowalia *et al.* 2012; UNICEF 1990) (see Figure 3.1). It breaks down the necessary resources to improve care such as education, social support, and empowerment, and it puts importance on the availability of those resources. In order to make clear the relationship between women's status and care (Smith *et al.* 2003), the concept will be highlighted in Figure 3.2. As illustrated, improvements in women's status potentially affect care for women, women's health and nutrition status, and care for children respectively. Each factor is also interconnected and therefore improvement in any one of these factors could lead to synergetic changes. In addition, the intra-household approach helps to understand that an increase in women's status makes it possible for women to use more resources for care.

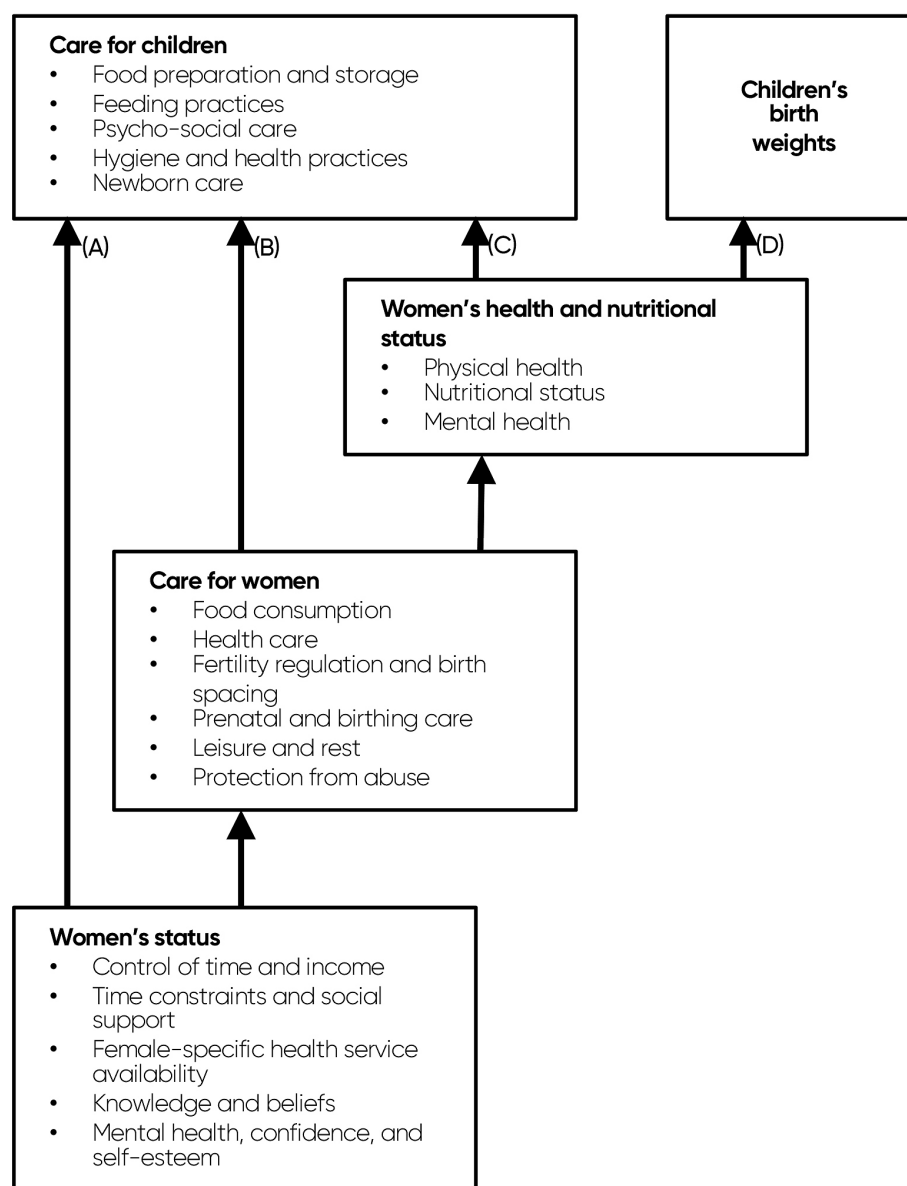
Accordingly, current concepts and approaches illustrate the process by which women's empowerment leads to an increase in available resources for women, as well as improvements in care and malnutrition. However, there is not much research on the gender dynamics regarding the primary cause, although the primary cause is the concept illustrated in Figure 3.2. Therefore, this essay will try to analyse the gender dynamics within the primary cause through analysing the following case study.

Figure 3.1 Conceptual framework showing linkages between care and nutrition outcomes



Source: Bhagowalia et al. (2012). © IFPRI.

Figure 3.2 Conceptual framework showing linkages between women's status and care for children



Source: Smith *et al.* (2003). © IFPRI.

3.2 Case study: the Realigning Agriculture for Improved Nutrition (RAIN) programme in Zambia

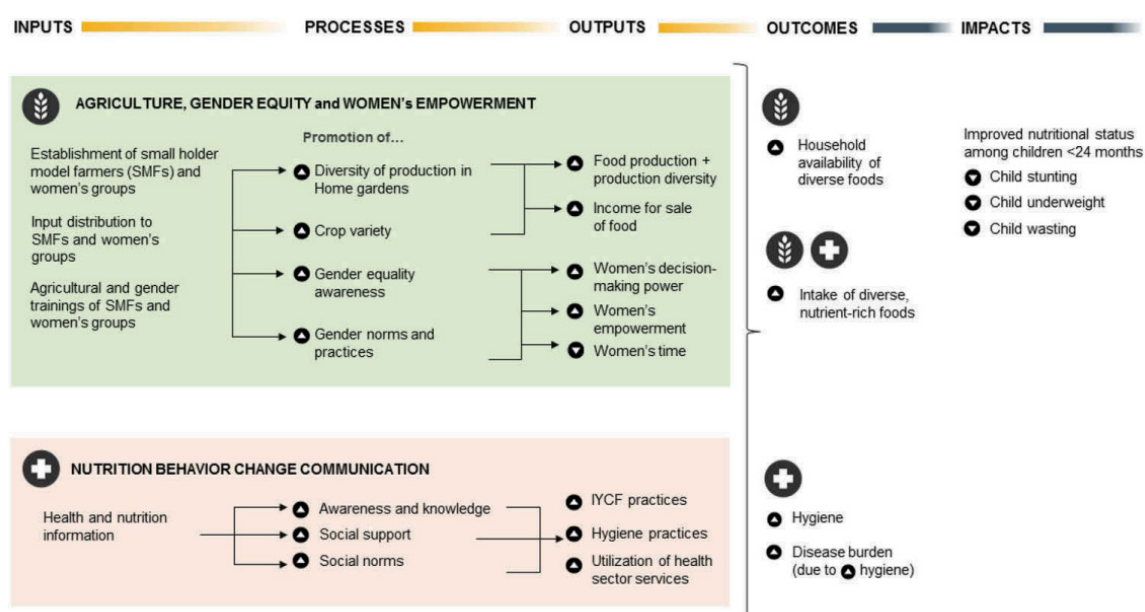
3.2.1 Programme description

It has been acknowledged that agricultural interventions can result in positive contributions to the underlying causes of malnutrition (Black *et al.* 2013). In this section, therefore, the focus will be on one such agricultural intervention programme: Realigning Agriculture for Improved Nutrition (RAIN) which was implemented in Mumbwa District in Zambia from 2011 to 2015

(Kumar *et al.* 2018). The RAIN programme aims at improving malnutrition in Zambia with two components: an agricultural component and a behavioural change communication (BCC) component by targeting households with pregnant women and/or children below two years old (IFPRI 2016). The former component includes both distribution (vegetables, seeds, and chickens along with agricultural tools) and training on home gardening and animal husbandry in order to promote a diverse diet for better nutrition status (Kumar *et al.* 2018). It is delivered through programme-created women's groups consisting of either pregnant women or those women with a child below 18 months, and it is led by a female Smallholder Model Farmer (SMF) who receives the initial distribution and training (*ibid.*).

The latter component is a provision of the BCC session which aims at the promotion of breastfeeding and complementary feeding practices, and which is led by the existing government Community Health Volunteers (*ibid.*). The session is based on infant and young child feeding (IYCF) guidelines and materials which include messages on optimal hygiene practices and health-seeking behaviours. In addition, it aims at an improvement in the norms around gender equality and women's empowerment through group activities in each component (*ibid.*). The Theory of Change (ToC) is as follows (*ibid.*; see Figure 3.3). As illustrated, the programme expects the intervention to improve nutrition status through women's empowerment and direct intervention in their care practice.

Figure 3.3 Theory of Change when applied to the RAIN project



Source: Kumar *et al.* (2018), **CC BY-NC-ND 4.0**.

3.2.2 Result of the programme

Based on the conceptual framework defined in the previous section, the RAIN programme is supposed to improve malnutrition by empowering women, such as by providing agricultural resources and increasing knowledge of IYCF because these make more resources available for women, which leads to an improvement in the care practices of women. Kumar *et al.* (2018) conducted a cluster-randomised controlled trial to assess the programme impact on child nutrition outcomes by formulating three randomly assigned groups: (1) an agriculture, gender, and women's empowerment group (Ag-G group); (2) an Ag-G with BCC intervention group (Ag-G-BCC group); and (3) a control group (receiving existing government services which target male farmers with antenatal care visits and growth monitoring for children under five years old). The impact evaluation report assesses the impacts on women's empowerment, child IYCF practices based on World Health Organization (WHO) indicators (WHO 2008), IYCF knowledge, child morbidity, height-for-age z-scores (HAZ), and weight-for-height z-scores (WHZ) (WHO 2010).

3.2.3 Analysis of the influence of the gender factor on the basic causes

The evaluation report finds several positive impacts on women's empowerment and care practices. Therefore, it seems that it succeeded in improving both care and available resources for women (underlying causes). However, the crucial point is that there are no statistically significant impacts on children's nutrition outcomes in contrast to the ToC (see Table 3.1). Only the Ag-G group shows a positive impact on WHZ in comparison to the control group. It can be said that this programme addresses the underlying causes (care) and availability of resources to women as stipulated in the conceptual framework. Nevertheless, it does not impact positive nutrition outcomes. This could mean that there are other factors which are affecting the results; therefore, in the next section, these potential factors will be analysed through gender-related and cultural perspectives.

There could be two main reasons as to why positive nutrition outcomes are not shown. First, the inadequate impact on women's empowerment is a reason for the lack of linkage between women's empowerment and nutrition. Kumar *et al.* (2018) prove that women's asset access scores, and financial and agricultural empowerment scores are statistically improved, while there is no significant impact on decision-making power scores (see Table 3.2). It shows that this intervention empowers women's access to assets, but it fails to enhance their decision-making ability. As a result, women were not empowered enough to allocate the available resources on child nutrition.

There is a need to examine further why there is little improvement in women's empowerment. The gender factors derived from the social and cultural context in Zambia could be a potential reason. For example, there is a gender-based division in the role of men and women in Zambia. The Food and Agriculture Organization (FAO 2018) reports that men are generally considered to be the decision-makers in society and they tend to engage with cash crops which generate income, while women tend to engage with staple food crops. Therefore, men are expected to make decisions and have control over income-generating resources, while about 60 per cent of women are more engaged with domestic work, as opposed to about 20 per cent of men (*ibid.*). These social expectations of their gender roles could be preventing women's empowerment.

In addition, gender violence could be another factor preventing the increase in women's empowerment. Mabsout and Staveren (2010) point out that violence against women overrules women's bargaining power. In fact, 47 per cent of women experience a variety of forms of violence such as sexual abuse and rape. Moreover, 54 per cent of women have suffered from spousal or partner abuse in physical, emotional and sexual ways (FAO 2018). Seventy per cent of married women report physical violence from their husbands or partners (*ibid.*). Therefore, these high rates of violence towards women could lead to a lack of improvement in the bargaining power score.

The second reason for the lack of impact on the nutrition outcome can be explained by the lesser impact on care practices. As a result of the programme, there has been an increase in the practice of the early initiation of breastfeeding (see Table 3.3). However, an improvement in women's status through providing new knowledge did not lead to improvements in long-term care practices, in opposition to the conceptual framework. For instance, exclusive and continued breastfeeding practice does not show a statistically significant positive improvement (see Table 3.3).

This could be explained by the workload of women. After the programme finished, it was shown that women tended to spend more time on agricultural work while the time on domestic work and leisure decreased (see Table 3.4). This means women spend more on income-generating work at the expense of domestic work, including taking care of their children and their leisure activities, so there is no impact on nutrition outcomes.

Behind the increase in women's workload, there is a gender-specific perspective regarding agricultural production, as derived from the social and cultural context in Zambia. In Zambia, maize is the main crop and women are the primary producers and net buyers, although they are not sellers because the market is dominated by men (FAO 2018). Women spend much of their labour in the maize field as well, while they spend about 60 per cent of their time on domestic work (*ibid.*). Therefore, women play a key role both in agricultural production and domestic work.

Furthermore, 70 per cent of the labour in the production and post-harvest of vegetables, one crop provided in the programme, is provided by women (*ibid.*). This suggests that the RAIN programme could provide additional work to women, leading to a reduction in women's time spent on childcare because women need to work at cultivating and harvesting the vegetables. These facts suggest the possibility that women initially have a heavier workload than men.

Moreover, HIV prevalence could affect women's time usage. The HIV rate in Zambia is higher among women (15.1 per cent) than men (11.3 per cent) (*ibid.*). Where HIV prevalence is high, caregivers, mainly women, need to use their time to take care of sick family members or orphan children of their relatives (Doss and SOFA Team 2011). Since Zambia experiences a comparatively high HIV prevalence (UNAIDS 2019) (see Table 3.5), women have severe time constraints due to taking care of others in addition to their children. As has been highlighted above, these are potential reasons why women cannot follow appropriate care practices, even though they have enough knowledge to do so.

The analysis on the impact of the agricultural intervention shows the influence of a genderrelated social and cultural context on women's empowerment and care. The RAIN programme could not improve nutrition outcomes significantly because it failed to capture the genderspecific basic causes of malnutrition. This proves that gender dynamics is a key determinant in the causes of malnutrition. Further, this means that an understanding of gender dynamics is key to understanding nutrition.

Table 3.1 Programme impact on nutrition outcomes

Indicator	Impact before and after the programme	
	Ag-G-BCC vs control	Ag-G vs control
HAZ, mean	-0.18	-0.33
WHZ, mean	0.22	0.38*
Stunting (%)	4.80	2.70
Wasting (%)	-3.50	-3.40

Note: *Statistically significant: either p-value <0.001, <0.01 or <0.05. Source: Kumar *et al.* (2018), **CC BY-NC-ND 4.0**.

Table 3.2 Programme impact on women's empowerment

Indicator	Impact before and after the programme
	(Ag-G-BCC + Ag-G) vs control
Decision-making power	-0.02
Asset access score	0.06*
Financial empowerment score	0.04*
Agriculture empowerment score	0.06*

Note: *Statistically significant: either p-value <0.001, <0.01 or <0.05. Source: Kumar *et al.* (2018), **CC BY-NC-ND 4.0**.

Table 3.3 Programme impacts on women's care practice

Indicator	Impact before and after the programme		
	Ag-G-BCC	Ag-G	Control
Early initiation of BF	31.12*	23.63*	25.14*
Exclusive BF	7.54	8.32	6.04
Continued BF at one year	1.17	-2.52	3.90

Note: BF = breastfeeding; exclusive BF means BF at six months after birth. *Statistically significant either p-value <0.001, <0.01, or <0.05. Source: Kumar *et al.* (2018), **CC BY-NC-ND 4.0**.

Table 3.4 Programme impact on women's time usage per day

Activities	Difference-in-difference after the programme (minutes)	
	(Ag-G-BCC + Ag-G) vs control	
Agricultural work	+37	
Leisure activities	-25	
Domestic work	- 14	

Source: Kumar *et al.* (2018), **CC BY-NC-ND 4.0**.

**Table 3.5 Adults aged 15–49:
HIV prevalence rate in eastern and southern Africa**

Rank	Country	Rate
1	Eswatini	27.4
2	Lesotho	23.8
3	Botswana	22.8
4	South Africa	18.8
5	Zimbabwe	13.3
6	Mozambique	12.5
7	Namibia	12.1
8	Zambia	11.5
9	Malawi	9.6
10	Uganda	5.9
11	Kenya	4.8
12	Tanzania	4.5
13	Rwanda	2.7
14	South Sudan	2.4
15	Angola	1.9
16	Ethiopia	0.9
17	Eritrea	0.6
18	Madagascar	0.3
19	Comoros	0.1<

Note: Data are not available for Mauritius and Seychelles. Source: © UNAIDS (2019).

4. Conclusion

This essay has attempted to highlight the importance of the gender factor in understanding nutrition by showing its dynamic effect on the causes of malnutrition. Comprehensive literature reviews show the causation of malnutrition and the linkages between women's empowerment, care practices, and malnutrition. In the conceptual framework, it makes the mechanism clear, which connect the process from women's empowerment to an improvement in malnutrition through improving care practices. This conceptual framework captures both care practices and gender as the key causations of malnutrition, and show that women's status is crucial to improving care practices and nutrition. In addition, it uses an intra-household approach to show the mechanism of women's empowerment.

This paper has analysed the RAIN programme which is an agricultural intervention aimed at improving nutrition with women's empowerment and BCC components. While it was expected to result in a positive impact on nutrition based on the conceptual framework, there were no statistically significant impacts on nutrition outcomes. This paper has analysed and explained the potential reasons for this, given the social and cultural context regarding the basic causes. Firstly, it has highlighted inadequate outcomes for women's empowerment. Secondly, it has discussed the lack of improvements in care practices due to the workload of women. The analysis concludes that both reasons are derived from the gender-related social and cultural context in Zambia, such as the role of women, the pervasiveness of violence against women, and HIV prevalence.

In sum, this essay shows, through the analysis of the RAIN agricultural intervention, that gender dynamics may be a cause of malnutrition. It proves that gender plays a very important role because its influence can be seen in all three causations and it can be the factor which prevent improvements in malnutrition. Therefore, it can be said that understanding gender factors can lead to a greater understanding of nutrition. Further, empirical research on gender factors, especially regarding the basic cause, may be necessary so as to improve future nutrition-related intervention programmes.

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Impact of Sanitation Interventions on Reducing Undernutrition in Odisha through Multisectoral Approaches and Social Inclusivity Lens

Deeksha Sharma

1. Introduction

Undernutrition results from inadequate food intake or nutrient absorption and infectious diseases and manifests as stunting, wasting, and micronutrient deficiency. Globally, almost half of child deaths under the age of five are the result of undernutrition (Black *et al.* 2013). In 2014, globally at least 159 million children were stunted and nearly 16 million children were severely wasted (UNICEF, WHO and World Bank Group 2015). In India, the National Family Health Survey 4 (NFHS-4) (International Institute for Population Sciences 2016) shows that 38.4 per cent of children are stunted and 21 per cent wasted. In the 2018 Global Hunger Index, India was ranked 103rd out of 119 countries and had some of the most poor performances with regard to child malnutrition numbers (von Grebmer *et al.* 2018).

In this paper, I will be discussing the need for nutrition-sensitive interventions to reduce levels of undernutrition in the state of Odisha. Odisha is among the poorest states in India where a sizeable number of people live below the poverty line. Undernutrition remains a matter of serious concern among children and women. According to the United Nations Children's Fund (UNICEF), 45 per cent of children in Odisha are stunted owing to faulty infant and child-feeding practices along with poor sanitation behaviours. With one of the poorest indicators on sanitation in India, only 22 per cent of all households have access to toilets (UNICEF, WHO and World Bank Group 2015).

While a change in individual behaviours and practices is critical to reduce malnutrition, a community-driven approach can help accelerate the process. For instance, despite the Government of India's Clean India Mission's objective to make India a 100 per cent open-defecation-free (ODF) country, efforts to target both individuals and the community are crucial for its wider success. Therefore, behaviours such as exclusive breastfeeding, handwashing habits, and the construction of more individual and community toilets to curb open defecation are all linked and crucially reduces morbidity, most importantly among children (UNICEF, WHO and World Bank Group 2015). Thus, my research question is: how can multisectoral sanitation interventions solve Odisha's problem of *undernutrition*? Further, how can these interventions be designed and delivered in a way to optimise their impact on undernutrition? To reduce Odisha's heavy burden of malnutrition, evidence-based, multisectoral policies are most important. In this paper, I will be drawing the links between sanitation and undernutrition in children in the state of Odisha, with a focus on nutrition-sensitive intervention with regard to sanitation through a lens of intersectionality and social inclusivity.

2. Undernutrition trends in Odisha

Improving nutrition, especially child nutrition, has remained a global priority over many decades, especially in the public health discourse. While the right to water and sanitation is a human right (UNGA 2010), the World Health Organization (WHO) estimates that nearly 50 per cent of undernutrition is linked to infections as a result of unsafe water, inadequate hygiene, or sanitation (Prüss-Üstün *et al.* 2008). A few studies show that a third of the world's population have no clean drinking water, hygiene, and sanitation at home (Exley *et al.* 2015). Sustainable Development Goal 2 recognises the need for improved nutrition with goal 2.2 aiming to end all forms of malnutrition by 2030 in order to achieve the agreed targets on stunting and wasting in children. Thus, ending hunger and malnutrition requires continuous efforts in designing interventions, especially in Asia, so as to end the so-called 'Asian Enigma'.

There exists a consensus now that nutrition-specific interventions cannot alone have an impact on stunting and wasting. This has directed the focus of policies, programmes, and academics on various nutrition-sensitive approaches with wider sectoral actions and involvement. The determinants of optimal nutrition are multifaceted, which are summarised as immediate, underlying, and basic (UNICEF 1990). Various enabling factors – social, economic, and political – also contribute towards improved nutrition (Gillespie *et al.* 2013). Despite India's impressive strides in the improvement of some health indicators, progress remains uneven to reduce child malnutrition (Pati *et al.* 2018). For instance, according to the NFHS-4 (2015–16), the number of children below five years with wasting has risen from 19.8 per cent to 21 per cent and this remains a common indicator of severe acute malnutrition (International Institute for Population Sciences 2016).

While nutrition-specific interventions are crucial to target the direct causes of malnutrition, nutrition-sensitive interventions pave the way for multisectoral approaches to sustain better nutrition. Development economist, Dean Spears, argues that poor sanitation that includes, for instance, open defecation, becomes a crucial inhibiting factor for children's growth (Haddad 2015). Thus, poor sanitation is associated with infectious diseases that include diarrhoea and soil-transmitted infections. Diarrhoea is the topmost cause of sanitation-related mortality and morbidity and is responsible for causing 8 per cent of deaths of children under five globally (UNICEF 1990). Therefore, improved water, sanitation, and hygiene (WASH) and sanitation interventions have the potential to decrease child undernutrition.

With the prime objective of making India an ODF country, the Government of India launched a sanitation programme in 2014 called the Swachh

Bharat Mission/Clean India Campaign. The campaign called for the construction of individual and community toilets to bring about a behavioural change and generate awareness about the importance of improved sanitation. While each state in the country has a sanitation target to achieve by 2019, the state of Odisha in eastern India has its own challenges in fulfilling these. Odisha is one of the most backward and poorest states despite its available natural resources and human potential. High levels of poverty along with the challenges of widespread social disparities and natural calamities aggravate the problem of malnutrition in the state (Kohli *et al.* 2017). Despite such challenges, Odisha has shown some improvements in nutrition outcomes in the past few years. For instance, rates of stunting among children under five years declined from 45 per cent to 38 per cent between 2006 and 2014 (*ibid.*: 38).

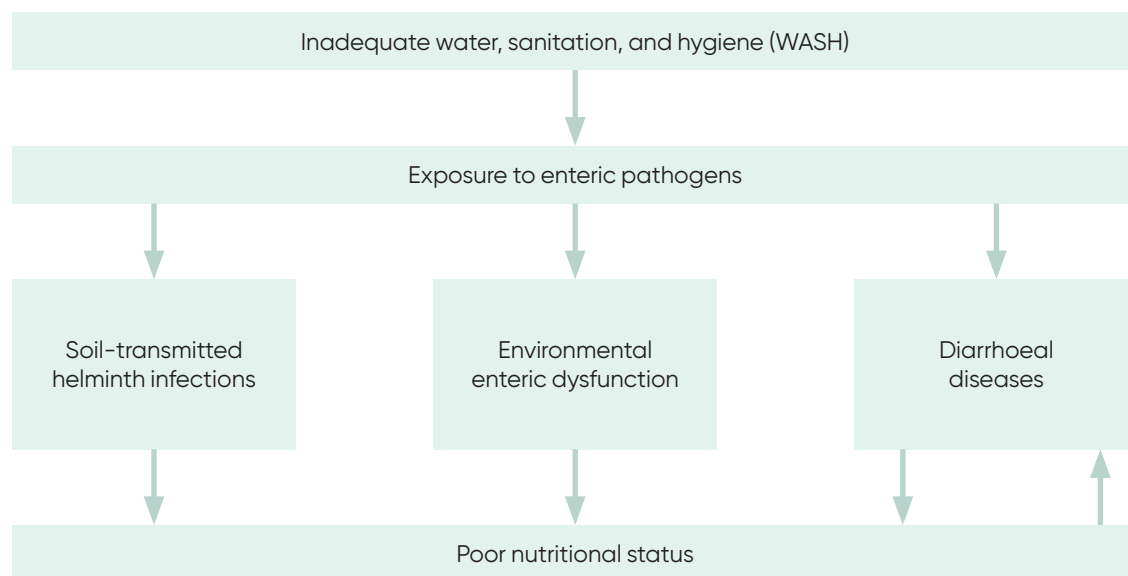
2.1 Drawing the links between WASH and undernutrition

I will be using the WASH and undernutrition framework by Exley *et al.* (2015) to understand the complex relationship between WASH and nutrition, drawing links between the two through three major pathways. First, a result of poor sanitation is *diarrhoea* which is globally the leading cause of deaths of children under five. It hinders the absorption of nutrients and thus contributes to poor nutrition. Undernourished children are further at a greater risk of suffering more frequently from diarrhoea, thus creating a never-ending vicious cycle (Mara *et al.* 2010). Further, *The Lancet* analysis in 2013 has shown that one quarter of cases of stunting can be a cause of five or more episodes of diarrhoea before two years of age (Walker *et al.* 2013).

Second, in the absence of proper sanitation and hygiene, *soil-transmitted helminths* are transmitted via contaminated soil that comes into contact with human faeces which contain worm eggs. Children in rural areas mostly go out in the open to play, often under unhygienic conditions and bring home with them a host of diseases. Infections caused as a result of this can lead to poor growth and anaemia along with impaired cognitive development. Recent studies show that improved sanitation can potentially decrease the risk factors of infection by an estimated 50 per cent (Ziegelbauer *et al.* 2012).

Third, poor WASH conditions also lead to environmental enteric dysfunction or environmental enteropathy which affects both the structure and function of the gut, leading to growth faltering owing to nutrient malabsorption and systemic inflammation (Lin *et al.* 2013). Such conditions aggravate poor sanitation and make children vulnerable to the potential risk of diarrhoea and other health concerns. Figure 2.1 illustrates the links between WASH and poor nutrition status.

Figure 2.1 Links between WASH and poor nutrition status



Source: Author's own, based on Exley *et al.* (2015).

Therefore, interventions that shield against the exposure to such diseases should be introduced along with improved sanitation practices and services. In the next section, I will highlight the Odisha Health Sector and Nutrition Plan (OHSNP).

3. Multisectoral interventions in Odisha to reduce undernutrition

In this section, I will highlight the literature on drivers of change in nutrition and health outcomes in Odisha by examining changes in outcomes (e.g. stunting, wasting). Here, I will discuss the Odisha Health Sector and Nutrition Plan (Odisha Technical and Management Support Team 2015) implemented by the Government of Odisha (April 2008–March 2015) gathering technical support and funding from the UK Department for International Development (DFID). The plan focused on quality and equity merged with decentralisation and evidence-based health, nutrition, and WASH programmes.

The plan was based on four main objectives. First, improving access to WASH services in the underserved areas. According to the Census of 2011, out of a total of 40 million people, 17 per cent belong to the scheduled caste and 23 per cent to the scheduled tribes. Nearly 83 per cent of Odisha's population live in rural areas (Census 2011). Therefore, a focus was laid on the underserved areas of the state. Second, strengthening public management systems: for instance, the Public Distribution System (PDS) and the National Rural Employment Guarantee Act (NREGA), along with sanitation departments in the state.

Third, behavioural change in the communities and generating awareness about nutrition, hygiene, and improved health. Behavioural change has been one of the objectives of the Clean India Campaign and progress in generating heightened awareness to end open defecation began towards the end of the Plan. This progress was made due to the fact that the new national government formed in 2014 started the nationwide campaign to make India clean. Fourth, evidence-based planning and delivery of equitable nutrition and WASH services.

Therefore, the progress of the plan was met by strengthening delivery mechanisms and the response of services on the supply side, along with having innovative community-based interventions on the demand side. Some positive results from a survey commissioned by the Technical Management Support Team included improvements in the coverage of maternal and child health services, increased coverage of women belonging to scheduled tribe communities, and the provision of nutrition services and practices targeting adolescent girls. Despite the aforementioned progress, the coverage of sanitation and hygiene practices remained low.

Undernutrition in Odisha requires greater attention to the approaches that address the underlying causes, along with nutrition-specific interventions such as healthy food, the prevention of infections, washing hands with soap, and improved feeding practices which include exclusive breastfeeding for six months and complementary feeding for two years and beyond (Prüss-Üstün *et al.* 2008). With the four previously mentioned main objectives of the OHSNP, I will focus on the first objective of improvement in WASH and nutrition through a nutrition-sensitive and multisectoral approach in Odisha. According to a study by Kohli *et al.* (2017), the appointing of well-qualified bureaucrats and some political stability for the political party in power provided space for several reforms in nutrition programmes to function in continuation. Assurance of adequate tenure allowed the bureaucrats working in the state to amass knowledge and work towards programme implementation.

Further analysis of the same study (Kohli *et al.* 2017) showed that between 2005 and 2015, various changes took place in the Integrated Child Development Services (ICDS) programme. During this decade, at least three bureaucrats were heading the Department of Women and Child Development (DWCD), where each had been serving for four years. Increase in the national financing (in 2004/05) for social sector programmes and direct financial support to Odisha from DFID helped in securing funding for the implementation of programmes to strengthen support to nutrition programmes in Odisha (Kohli *et al.* 2017). Expanding ICDS under the National Rural Health Mission (NRHM) through frontline workers (accredited social health activist workers, auxiliary nurse midwives, and *anganwadi* workers) and increasing the number of women's self-help groups increased the delivery mechanism for various health, nutrition, and sanitation programmes. Under the OHSNP, nutrition coverage has been similar across different groups in the state which indicates that targeted benefits have been achieved. Though the gap in stunting, wasting, and micronutrient deficiency has not been covered, the plan paves the way for a future course towards formulating sanitation and nutrition-friendly policies.

4. Analysing nutrition interventions through the lens of social inclusivity and intersectionality

Odisha is one of the most underdeveloped states in India and is among the worst performers in terms of sanitation coverage. Thus, a majority of people in Odisha are denied their basic human right to water and sanitation. Poor infrastructure, poverty, and negative attitudes and behaviour towards open defecation have resulted in poor sanitation status. Therefore, to accelerate elimination of stunting, efforts that tackle the underlying determinants of undernutrition are necessary. The OHSNP shows that when supply-side and community-based models work together to improve sanitation services, levels of undernutrition can potentially go down. Therefore, I argue that a multisectoral approach with various community actors involved can scale up interventions to improve WASH which can have an impact on better and improved nutrition.

For instance, in the case of the OHSNP, to achieve better outcomes, government departments – the DWCD, the Department of Health and Family Welfare, and the Rural Development Department – must work in collaboration with departments responsible for agriculture, education, scheduled castes (SCs), and scheduled tribes (STs), which can together help in implementing strategies to reduce undernutrition. The Census of 2011 found that only 14 per cent of rural households have access to sanitation facilities, while 85 per cent practise open defecation (Census 2011). Sadly, Odisha has witnessed severe poverty relative to national and global standards, and disparities in health and nutrition indicators are a major concern amongst the socially disadvantaged and marginalised groups, especially ST communities. Therefore, I argue that an 'intersectionality lens' can help in the improvement and functioning of multisectoral programmes and initiatives to prevent undernutrition.

For instance, in 2013, notable differences in stunting rates between STs (46.1 per cent) and other populations (25.3 per cent) (Ministry of Women and Child Development 2015) were recorded. Added to this are the inter-district differences; that is, between coastal and northern as well as southern districts that exist among underweight children below five years of age. For example, in 2014–15, the prevalence of underweight children in the coastal district Jagatsinghpur was 24 per cent while in the northern district Mayurbang it was 53.6 per cent (Odisha Technical and Management

Support Team 2015). The Census of 2011 revealed that less than a quarter of households in Odisha have water sources available within close proximity while the rest have to fetch water from over half a kilometre away.

Frequently reported water-borne diseases have been a cause of poor health of children in rural areas. A big number of habitations of poor and socially marginalised groups, for instance, SCs and STs and other minorities living in rural and tribal areas, are deprived of safe and clean drinking water and sanitation. The *dalit* communities are discriminated against when they go out to fetch water in some multi-caste villages (Jena 2014). Access to sanitation facilities by different people often reinforces various intersections of caste, class, gender, location (rural or urban), and so forth. Many *dalit* women in villages still have to wait for their turn to collect water from the wells until the turn of their caste comes (which is almost always at the end). Therefore, many people belonging to lower castes still have to face social humiliation and indignity in their daily lives.

According to the daily newspaper *The Pioneer*, out of the government data of 85,600 SC and ST habitations in Odisha, only 56 per cent have rural drinking water (*ibid.*: 1). Therefore, my argument is that intersectionality can help bring about a vital change in sanitation coverage in Odisha by taking into account the various needs and requirements of people belonging to different sections of the state. The marginalised communities should, thus, get the protection and support from the state to increase access of these communities to drinking water and sanitation facilities. Thus, social inclusivity must be a guaranteed condition to allow services to reach every individual, which surely will make a huge positive impact on the nutrition of children.

Though there is a significant association between improved sanitation and a reduction in undernutrition, any causal relationship has so far not been identified. While studies by Hammer and Spears (2013) and Pickering *et al.* (2015) have reported significant effects of improved sanitation on stunting, some studies show that clean sanitation produces less of an impact on improving child undernutrition (Cameron, Shah and Olivia 2013; Patil *et al.* 2014). A possible reason for the failure of these studies to show links between sanitation and reduced undernutrition and stunting could be a result of drawing misleading links between the construction of toilets and their use. Therefore, despite building over 3.3 million individual household toilets (Singh 2018) since the launch of the Clean India Campaign in 2014, more than a third of villages had no toilets even after the intervention (Clasen *et al.* 2014).

Owing to poor behavioural change and caste barriers, people still continue open defecation which increases exposure to faecal pathogens. Another possible reason for poor sanitation outcomes could be contamination of hands owing to poor handwashing (with soap) habits. Caste barriers in schools expose children without access to a clean water supply to open defecation. This puts them at a greater risk of ingesting bacteria, viruses, or parasites which may cause intestinal infections and inflammation in the gastrointestinal tract. This in turn can lead to stunting in children and makes them vulnerable to poor childhood development.

5. Conclusion

The case of Odisha shows that nutrition-sensitive programmes should be a focus for policymakers and health professionals so as to improve sanitation services to promote equity in health and nutrition. Social protection programmes such as the PDS and the Midday Meal Scheme merged with sanitation programmes such as the Clean India Campaign should be made more nutrition-sensitive in order to achieve better nutrition outcomes. While the tenure of the Clean India Campaign is about to end (as at October 2019), efforts to maximise sanitation coverage must continue. To achieve this, sufficient funds must be provided to Odisha to continue its nutrition programmes (with regard to safe sanitation) along with policy support, good leadership, trained frontline workers, well-informed civil society, and service delivery mechanisms all geared towards the targeted goal.

Further, in this paper, I have shown why intersectionality can be a solution to dealing with undernutrition in Odisha. Thus, all sanitation and nutrition programmes should be all-inclusive and not limited to certain sections of society. An integrated approach of initiating WASH and nutrition interventions speeds up the progress, while addressing the intervention needs of both urban and rural areas separately. While improved sanitation alone cannot tackle child undernutrition, innovative interventions such as Shakti Varta's in Odisha (which harnesses the power of women to generate awareness in health and nutrition interventions), along with Community Management of Acute Malnutrition, can pave the way for accelerating the progress of multisectoral interventions to reduce undernutrition.

While Odisha often gets hit by natural calamities such as cyclones, every calamity wreaks havoc and disrupts WASH services. The recent Cyclone Fani in May 2019 has led to a lack of safe drinking water, and poor sanitation with animal carcasses left in the open, all factors which could trigger diseases. Odisha's vulnerability to natural disasters may be harder to control but the fate of the children in Odisha can be positively changed with national, local community, and individual efforts with the potential to create a clean and nutritionally healthy state.

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Restoring Normality in Chaos: School Feeding in Conflict-Affected Sri Lanka

Beryl Lo

1. Abstract

With a view to addressing issues of food insecurity, undernutrition, and low level of schooling, school-feeding programmes are increasingly prevalent in fragile, conflict-, and violence-affected states (FCVAS). Drawing on a case study of two different school-feeding interventions in the conflict-affected Northern and Eastern Provinces of Sri Lanka, this paper seeks to illustrate the importance of effective social protection in FCVAS. It critically examines the programme design and highlights the contextual barriers hampering effective implementation. In order to maximise the effectiveness and ensure the sustainability of school-feeding programmes, it is indispensable to incorporate community engagement and adopt a holistic approach in the programming.

2. Introduction

Protracted armed conflicts and political instability continue to expose school-aged children to multiple risks and compromise their wellbeing and development, driving a high prevalence of food insecurity, malnutrition, and child morbidity, as well as low levels of schooling (Altare and Guha-Sapir 2013; Justino 2014; Tranchant *et al.* 2018). In 2018, one third of the total 303 million out-of-school children in the world, aged five to 17, are living in FCVAS (UNICEF 2018). FCVAS encompass a wide array of situations which often involve the state's failure to meet the rudimentary needs of its citizens, coupled with physical forms of violence induced by political, economic, or social factors (Green 2017).

In light of the situation, school feeding is regularly used as a social safety net during and after the conflict in FCVAS (Holmes 2011). Targeted at vulnerable school-aged children, school feeding is deemed to be a cost-effective response to emergencies in FCVAS by increasing the quantity and quality of food consumption (Hidrobo *et al.* 2018), reinstating the sense of normality (Bundy *et al.* 2018), and bringing long-term benefits of human capital (WFP 2013). However, evidence on the impact of school-feeding programmes remains inconclusive. The strongest empirical evidence is found for improving nutritional outcomes (Carpenter, Slater and Mallet 2012), whilst the educational impact remains notably weak (Aurino *et al.* 2018).

The case of school-feeding initiatives in the conflict-torn Northern and Eastern Provinces of Sri Lanka elucidates the importance of social protection in prolonged conflicts. Sri Lanka offers free and compulsory universal education from age five to 15, with a primary education net enrolment rate of 99.11 per cent in 2017 (UNESCO 2019). However, this ostensibly satisfactory national figure may distort the reality in the Tamil-dominated Northern and Eastern Provinces, which endured three decades of protracted civil war from 1983 to 2009. These regions were the worst-affected in terms of fatalities, damage to infrastructure, and deficiencies in food and nutrition levels. An estimated 340,000 children aged below 18 were orphaned mainly due to the civil war in Sri Lanka (UNICEF 2012), who were vulnerable to the risks of non-schooling and child labour. Against this backdrop, two different school-feeding programmes were launched, including the government-led Samurdhi programme in 2002 and the United Nations World Food Programme (WFP) in 2003, to address issues of widespread malnutrition and food insecurity.

This paper seeks to explore the effectiveness, challenges, and sustainability of school-feeding programmes in the conflict-affected provinces of Sri Lanka. By comparing and contrasting the two different school-feeding interventions rolled out in the Northern and Eastern Provinces, it critically evaluates the strengths and weaknesses of each programme. It then highlights the operational barriers to effective school feeding and draws implications for future programming. Given the peculiarity of post-conflict settings, a holistic approach should be adopted to maximise effectiveness and community participation, to ensure the sustainability of school-feeding programmes. In the following, Section 3 provides a brief overview of school-feeding programmes in FCVAS, and more specifically in the context of the conflict-affected provinces of Sri Lanka. Using a comparative approach, Section 4 looks into two distinct school-feeding initiatives in the Northern and Eastern Provinces of Sri Lanka towards the end of the protracted crisis. The merits and shortcomings in programme design will be identified, followed by a discussion on the implementation barriers and their policy implications.

3. Background

3.1 School feeding in FCVAS

School feeding in FCVAS primarily aims at addressing the issues of food insecurity and malnutrition exacerbated by protracted crises or social and climate shocks in FCVAS (FAO 2017). By providing a daily ration of school meals or snacks, parents are incentivised to send the displaced school-aged children to attend classes at schools, whereby reducing the household burden of feeding the entire family (Meir 2005). In FCVAS, where access to schools is often restricted, the connotation of school feeding may differ considerably. Schools remaining open and sustained by school-feeding programmes, serve a protective function in terms of child safety, integrity, and normality during and after the conflicts (Carpenter *et al.* 2012).

In alignment with the policy objectives of Education in Emergencies (EiE), access to food and protection from deprivation are guaranteed by school-feeding programmes (Sinclair 2001; Hatløy and Sommerfelt 2017). It is thus pertinent to highlight protection as the primary goal of school-feeding programmes in the context of FCVAS (Harvey and Holmes 2007). The two major modalities of school feeding include in-school feeding and take-home rations (Bundy *et al.* 2009). In-school feeding refers to the provision of on-site meals which is conditional on the student's attendance at school, whilst take-home rations extends the coverage to allow the households of school-aged children to receive food rations and thus improve household food security (WFP 2013). The past decade has witnessed an unprecedented proliferation in the scaling-up of school-feeding programmes in FCVAS (Bundy *et al.* 2018), including the ongoing acute emergencies in South Sudan, Syria, and Yemen, and the post-war Afghanistan and Iraq.

However, regardless of the crucial importance of social protection in FCVAS, the current scholarship on the impact of school-feeding programmes in FCVAS is limited (Drake *et al.* 2016; Kristjansson *et al.* 2016; Tull and Plunkett 2018). While there is some evidence suggesting increased enrolment and retention of students in conflict-affected schools after participating in the school-feeding programmes (Aurino *et al.* 2018), the overall effectiveness of school-feeding programmes in FCVAS remains debatable. On the one hand, most evaluation reports, commissioned by the World Bank and the United Nations World Food Programme (WFP), tended to present a positive framing of school-feeding programmes. Bundy *et al.* (2009) observed a marked improvement in

the micronutrient levels and overall energy increase of school-aged children, as well as an improvement in their educational achievements.

On the other hand, scholars from independent research institutes, whilst affirming the findings of increased dietary consumption and school attendance, reached tentative conclusions of the effectiveness as to other nutrition- or education-related outcomes (Lawson 2012). For instance, thin impact was seen in cognitive abilities and academic achievements (Jomaa, McDonnel and Probart *et al.* 2011; Tranchant *et al.* 2018). Besides, although school-feeding programmes generally increase school enrolment and attendance rates, an exception is observed in contexts with high pre-existing school enrolment rates (Snilstveit *et al.* 2016), as observed in Uganda's internally displaced persons' camps (Adelman *et al.* 2008), as well as in Sri Lanka (He 2010).

Therefore, it is necessary to refrain from generalising the impact of school-feeding programmes identified in the literature. The heterogeneity in the design, implementation, and evaluation of each school-feeding programme has led to variance in outcomes (Masset and Gelli 2013), whereas the considerable differences in the operating environment preclude any universal model for school-feeding interventions to be applied across different countries (Tull and Plunkett 2018).

3.2 School feeding in Sri Lanka's Northern and Eastern Provinces

In the conflict-ridden Northern and Eastern Provinces of Sri Lanka, the civil war between the majority Sinhalese Government of Sri Lanka and the Liberation Tigers of Tamil Eelam (LTTE) brought severe casualties and massive devastation of physical infrastructure including schools and transportation systems, as well as upheaval of livelihoods. Food insecurity and malnutrition rates were highest in the country, following the protracted conflict and recurrent natural disasters (WFP 2017). A majority of school-aged children (82 per cent) in the affected provinces reportedly had experienced war-related events (Catani *et al.* 2008). Such traumatic exposure to violence gave rise to school absenteeism and adversely impaired the performance and mental wellbeing of school children (Siriwardhana *et al.* 2013). Recurrent fighting prevented schools from functioning normally and disrupted children's continuity in education, leading to a drastic drop in school attendance rate (Hart 2002).

The legacies of the long-standing conflict cast a dark shadow over the development of the Northern and Eastern Provinces of Sri Lanka. In the present day, these provinces remain one of the most educationally

disadvantaged regions, with uneven educational resources, poor infrastructure, and stark disparities in income and poverty level (Fernando and Moonesinghe 2012; Chandrakumara 2015). Despite the high primary school enrolment rate of 92 per cent recorded in the Northern and Eastern Provinces, it does not necessarily reflect school-aged children's actual attendance and participation (USDL 2004). Children from poor Tamil and Muslim households have much lower school participation rates compared to their counterparts in other provinces, particularly at the secondary level (Arunatilake 2006). The performance of students in Tamil and Muslim schools was reportedly worse off than those in Sinhala schools, with stagnation or decline during 2007 to 2009 (i.e. the final stage of the war) (Little, Indika and Rolleston 2011).

The drop-out rate of 15.8 per cent in the Northern and Eastern Provinces is also remarkably high compared to the national average of 3.9 per cent, with ubiquity of irregular attendance among displaced children (De Silva 2003). On the other hand, the alarmingly high undernutrition rates in the Northern and Eastern Provinces necessitate immediate interventions (Vhurumuku *et al.* 2012). According to the Demographic and Health Survey conducted in 2016 (Department of Census and Statistics, Sri Lanka 2017), the average malnutrition rates in the Northern and Eastern Provinces were recorded at 20 per cent for stunting and 15 per cent for wasting, exceeding the national average figures and World Health Organisation's emergency threshold (WFP 2018a), whereas one quarter of children in the Northern Province suffered from anaemia (World Bank 2014).

Two school-feeding programmes emerged towards the end of the conflict, including (1) the standard school-feeding programme run by the WFP and (2) the Samurdhi welfare programme. These two programmes share similar goals, but differ in the delivery mechanisms and targeting strategies, which will be discussed in detail in Section 4.

4. Analysis of school-feeding programmes in Sri Lanka

4.1 The WFP programme

In 2003, the WFP school meals programme was piloted in partnership with the Ministry of Education, targeting at school-aged children most affected by the displacement, food insecurity, and chronic poverty in the Northern and Eastern Provinces (World Bank 2015). Schools in areas prone to food insecurity were targeted, primarily based on the WFP's own vulnerability and needs assessments, as well as in consultation with local government authorities and other international non-governmental organisations. Blanket distribution was adopted in each targeted school, where all students from grade one to grade nine were provided with in-kind assistance in the form of daily nutritious mid-morning meals of rice, vegetables, and lentil porridge or a corn-soya blend (WFP 2003).

With the pre-determined set of food items procured by the WFP and distributed by the Ministry of National Building and Development, a group of parents, teachers, and local volunteers would then cook and serve on-site meals in each programme school (He 2010). With a view to rebuilding a healthy school environment, the WFP facilitated the construction of school kitchens and provided an integral package of nutritional education, de-worming services, and micronutrient supplementation in collaboration with other actors (WFP 2018a). The pilot programme reached 33,000 students in four districts in the Northern and Eastern Provinces in 2003. Since the programme was well received by students and teachers, it was then scaled up in 2005 to cover 400,000 students in 15 provinces including those affected by the 2004 Asian Tsunami (WFP 2006). To date, approximately 158,000 students in 974 schools across five districts of Northern Province in Sri Lanka continue to receive daily school meals (WFP 2018b).

4.2 The Samurdhi welfare programme

The Samurdhi programme refers to the national poverty alleviation scheme, where the cash-based school meals programme falls under the relief component of the Samurdhi programme targeted at rural schools with high malnutrition rates in the Northern and Eastern Provinces (Tilakaratna and Jayawardana 2015). A per-student subsidy of 22.5 LKR (US\$0.13) per meal was transferred to Samurdhi recipients in the community, who were obliged to cook and provide mid-morning in-school meals to

students (Tilakaratna and Sooriyamudali 2017). The Samurdhi recipients, most of whom were parents of students participating in the school meals programme, then formed Health Promotion Committees with teachers, parents, and other community members to manage the preparation and distribution of meals. The committee would then follow the recipes devised by a team of nutritionists to cook the prescribed nutritious meals at home or the school kitchen, depending on the availability of food commodities in the local market (World Bank 2014).

Contrary to the blanket coverage used in the WFP programme, the Samurdhi programme was targeted at children in different grades in different schools (He 2010). School principals were responsible for selecting the vulnerable students in their respective schools (World Bank 2014), where officials from the Ministry of Education would determine whether or not the programme would be scaled up. As well as this, the entire school would be entitled to meals if it was located in a highly vulnerable area identified by the Ministry of Health or if it was a small school with less than 100 students. The community-based Samurdhi welfare programme initially covered only grade one students in less than 100 schools, which was then expanded to serve students across different grades (World Bank 2014).

4.3 Juxtaposition of the two programmes

The introduction of school-feeding programmes in north-eastern Sri Lanka yielded some success, in particular the steady increase in food intake and school attendance rate (WFP 2018a). It also fostered the return of people temporarily displaced by conflicts by restoring the education system (Harvey *et al.* 2010) and provided safe spaces to protect school-aged children against threats of recruitment into child labour (Hatløy and Sommerfelt 2017). However, the issue of skipping breakfasts at home worsened to some extent, where parents perceived that the nutrient intake from the mid-morning meals served at school would suffice for their children (Townsend *et al.* 2015). The two programmes are similar at their core, both aiming dually at improving nutritional outcomes and enhancing school participation. Moreover, the delivery of food to students was conditional on their school enrolment and attendance in both programmes. The other similarity lies in beneficiary targeting, wherein they were both targeted programmes based on the degree of vulnerability of students in poor and conflict-affected areas with a high level of food insecurity and nutritional deficits. Geographical and vulnerability-based targeting used by both programmes helped to minimise both inclusion errors and exclusion errors (Bundy *et al.* 2009). Nonetheless, there are significant differences between the two programmes in terms of the transfer modality and delivery mechanisms.

For the *WFP programme*, it is a replication of the standard in-kind school-feeding programme being implemented worldwide, which has proven to be systematic and easy to be scaled up in emergencies (Bundy *et al.* 2009). The programme serves as a robust social safety net, providing school-aged children with a stable supply of nutritious meals and fostering high rates of retention (99 per cent) for both boys and girls (WFP 2018b). However, it adopts a *top-down approach* in the distribution of food (He 2010), where pre-determined food commodities procured centrally by the WFP are delivered to schools. To a large extent, the selection and sourcing of the standard food commodities is a non-transparent process which may not necessarily cater to the diverse needs arising in different schools. This can be attributable to the WFP-driven needs assessments which preclude the active involvement of key stakeholders including teachers. Without adequate sensitisation for the teachers or parents towards the importance of nutrient intake and education, they were merely seen as administrators distributing the meals to students and keeping records, instead of key partners who could actively get involved in the planning process or shape the operations (Iddrisu 2018).

Furthermore, such in-kind assistance inevitably is subject to delays in food delivery, given the reliance on the relatively weak logistics network and poor infrastructure in the conflict-torn provinces. Monitoring data from the WFP revealed that 26 per cent of schools reportedly either did not receive the planned amount of food items nor punctual delivery due to difficulties in transportation (He 2010). The amount of time spent on regional or international procurement of food commodities and the shipping cost for in-kind assistance may be double or triple that associated with cash transfers (Hoddinott *et al.* 2013).

To some extent, it is cogent that the WFP did not mainstream cash-based transfers into its school-feeding programme, given the volatile political landscape and security concerns amidst the fighting at the inception of the programme, as well as the subsequent deterioration of the security situation in July 2006 (Sandström and Tchatchua 2010). Ten years after the end of the war, the situation in northeast Sri Lanka has altered considerably, with a more stable security situation and well-functioning food markets. However, cash-based transfers have yet to be incorporated in the WFP's school-feeding programme, notwithstanding its cost-effectiveness and the positive impact on food security (Bailey and Pongracz 2015). Moreover, the sustainability of the programme is questionable, given the dependence on external funding subject to changes in the WFP's operating strategies. If the WFP decides to retreat from the project area, the schools would be left without any means to provide food for the students.

On the other hand, the cash-based *Samurdhi* programme is a *community-based* school-feeding programme which facilitated greater local ownership and nurtured grass-roots capacity to be agents of change (Andrews *et al.* 2011). It afforded a higher flexibility in addressing specific dietary needs, where community members could tailor the menu to students' preferences by deciding the type and amount of food commodities to buy. When community members purchased food commodities in the local market, they were supporting the production of local farm produce grown by smallholder farmers and indirectly stimulating local agricultural production. Concurrently, the timely delivery of meals sourced from local production could be guaranteed due to a lower dependence on cross-province logistics infrastructure. The community-driven Health Promotion Committees not only better engaged stakeholders in the decision-making process, but also enhanced accountability and transparency towards the procurement and management of food commodities (Tull and Plunkett 2018). Furthermore, the *Samurdhi* programme provided a higher incentive for community members to proactively recruit and retain students for the sake of getting more revenue (He 2010).

The *Samurdhi* programme also demonstrated the government's commitment to include conflict-affected people in national social protection services and reconcile the gulf between the marginalised Northern and Eastern Provinces and the rest of Sri Lanka. Even with a comparatively smaller scale than that of the WFP programme, the *Samurdhi* programme was widely acclaimed by communities in the Northern and Eastern Provinces since it granted them access to central government's funding support and other services (CEPA 2006). In addition, the cost of cash-based transfers was relatively lower than in-kind assistance, with savings in food delivery costs and landside transport, storage, and handling costs (Campbell 2006).

Nevertheless, the discretionary identification of beneficiaries without a clear set of guidelines on selection criteria could be a potential problem in causing mistakes in targeting (Godamunne 2015). Inclusion errors arose where students who may not have needed food assistance received it, whilst excluding those who were eligible or in dire need of assistance (ILO 2008). In addition, the local sourcing of food hinged on the availability of the local production of crops, but vegetables and fruits with high nutritional quality were not necessarily available in the local market (Townsend *et al.* 2015). In rural Sri Lanka, farmers tended to cultivate profitable crops such as tea or even cannabis without paying heed to the nutrition content of crops. In this regard, local community actors faced difficulties in acquiring the preferred food commodities, which adversely affected the quality of school meals served to the students (Andrews *et al.* 2011).

4.4 Barriers to effective school feeding in Sri Lanka

In addition to the programme design, the effectiveness of school-feeding programmes was largely constrained by the contextual factors affecting their implementation, including the supply- side and demand-side barriers. Justino's framework of destruction, displacement, and distributional effects (2014: 5) illustrates the obstacles to education in FCVAS, which is equally applicable to school-feeding programmes. In the Northern and Eastern Provinces of Sri Lanka, there were immense difficulties in maintaining school attendance and sufficient nutrition intake amidst the destruction of infrastructure and temporary displacement. These raise security and protection concerns to keep school-feeding programmes operational.

4.4.1 Supply-side barriers

First and foremost, the prolonged armed conflicts caused *extensive destruction of school premises and community infrastructure* in the Northern and Eastern Provinces. At the inception of school-feeding programmes in 2003, an official ceasefire had not been reached. The appropriation of school premises by armed forces forcibly evicted students and teaching staff (Hart 2002), bringing school meals programmes to a halt or eventually shutting down schools in the worst case. Schools located in the immediate vicinity of fighting or less accessible areas were excluded from both school-feeding programmes due to safety concerns and operational constraints. Even for those schools which remained open during the conflicts, overcrowding in classrooms was common which was not conducive to learning (Vermeersch and Kremer 2005; World Bank 2014).

Despite the gradual expansion of coverage in 2005, the resumption of brutal fighting between the LTTE and the government forces in 2006 led to the closure of the A9 Highway, one of the main arterial roads connecting the north with the rest of Sri Lanka (Human Rights Watch 2007). This severely hindered the delivery of food and essential supplies to schools in Jaffna District, the capital city of the Northern Province. As of September 2007, approximately 261 schools were damaged or destroyed during the conflicts, and where students could, they merely attended 80 out of 210 school days in the academic year (UNICEF 2014).

The war-inflicted devastation also posed an obstacle to the setting up of the school-feeding infrastructure. School meals programmes required basic hardware including kitchens with a clean water supply, fuel, stoves, storage rooms, and dining areas (Meir 2005). However, the inadequate supply of drinking water and sanitation facilities in damaged schools proved to be challenging for the preparation of

school meals (NIE and UNICEF 2003). Further, as an explicit war tactic, the warring parties used famine as a weapon of war by blocking food trucks operated by humanitarian actors and depriving people's access to food assistance (Moussa 2002). In Trincomalee District of the Eastern Province, the WFP's food delivery was reportedly suspended for three weeks due to the government's blockage of humanitarian aid.

Added to the above, the conflict-inflicted *forced displacement* of civilians not only weakened the ability of schools to provide education, but also adversely affected the delivery of school meals. Teachers play a vital part in implementing school-feeding programmes (Iddrisu 2018), who have rapport with parents and the necessary nutritional and educational information on the students. However, shortfalls of teaching staff in the LTTE-controlled areas were frequently reported, due to insufficient government funding and safety concerns (Hart 2002). During armed conflicts, the supply of teaching staff dropped drastically, where teachers had fled the schools located in conflict-affected areas and any recruitment of new teachers was challenging (Davies and Naylor 2012). This would put considerable strain on schools in the Northern and Eastern Provinces, given their long-standing deficiencies in funding and qualified teachers (Levi 2019). Similarly, motivational constraints were also reported in the field where teachers felt overburdened with additional responsibilities to deliver school meals (Galaa and Saaka 2011). Hence, the scarcity of teachers from schools to keep proper records and facilitate the delivery posed immense challenges for the delivery of school meals.

4.4.2 Demand-side barriers

Safety and security concerns may deter students from attending school despite the incentive afforded by the school-meal programmes. Relative security is the pre-requisite to school attendance. However, schools had been frequently targeted in violent attacks during conflicts (UNESCO 2011), according to various reports on children and armed conflict by the United Nations Secretary-General (UNSC 2012, 2013, 2014, 2015). In particular, the Vaharai bombing in 2006 was a notorious incident where the LTTE and government forces exchanged fire nearby the Kathiravelli School where at least 2,000 internally displaced civilians were taking refuge, killing 45 civilians and injuring 300 others (Human Rights Watch 2007).

Furthermore, the duration and complexity of armed conflicts *obstructed* access to schools and the mobility of students and teachers. In Jaffna District, with heavy military build-up, students were reportedly subject to harassment at military checkpoints, raising parents' concerns about their safety. In Vanni Region of the Northern Province and some remote

villages of the Eastern Province, due to the ruptured public transportation network caused by fighting, students were forced to trek through jungles for several hours per day in order to attend schools (Hart 2002). This was especially dangerous for the students during the monsoon season where they might have encountered flooding and landslides during their journey to school. Parents were also perturbed about the forced recruitment of their children by the LTTE during the journey or at school, as evidenced in the incident where a local school in Vanni Region was burnt down by parents in attempt to curb any potential recruitment activities (Bush and Saltarelli 2000). On a different note, the psychological trauma induced by the exposure to armed conflicts and forced displacement would also dissuade school-aged children from attending schools and affect their educational achievements (Catani *et al.* 2008).

In addition, armed conflicts exacerbated *chronic poverty* and *exclusions based on ethnicity, religion, and gender*, which in turn reinforced exclusion from accessing education. Communities in the Northern and Eastern Provinces, especially the historically marginalised Tamils and Muslims, sustained severe economic losses and had limited access to basic social services from the lengthy civil war and the corresponding isolation from the rest of Sri Lanka in terms of socioeconomic development. Even if free food was provided by the school-feeding programmes, poor households struggled with the schooling costs including fees for school furniture and facilities (Jayaweera and Gunawardane 2007). In this regard, the opportunity cost of attending school as compared to engaging in child labour activities could hardly be offset by the school-feeding programmes (Aurino *et al.* 2018). Consequently, school-aged children were removed from schools to participate in income-generating activities for their households (UNICEF 2014). On the other hand, the gendered impact of wars was also observed in the case of the Sri Lankan civil war, culminating in the immense difficulty of keeping girls in schools. In particular, Tamil girls from female-headed households in the Northern and Eastern Provinces could seldom attend school since they were obliged to assume the domestic responsibilities of their working mothers (Hart 2002).

4.5 Implications

Community support and participation have proven to be pivotal to effective and sustainable school-feeding programmes in emergencies or post-conflict settings (Bundy *et al.* 2011), as manifested in South Sudan (UNICEF SSEC 2018) and Kenya (Tull and Plunkett 2018).

In the case of Sri Lanka, the high degree of social acceptance towards the Samurdhi programme illustrated that strong partnerships among

parents, schools, and the wider communities were indispensable to the programme's success. These local actors were empowered to be agents facilitating social protection (Haile and Ali 2019), where they gained the ability to articulate students' needs, to organise the relevant response, and to contribute to the community. This, in turn, alleviated the burden of teaching staff having to take on administrative tasks, and allowed them to focus their energy on teaching. Such bottom-up approaches can not only enhance the programme outcomes of school feeding, but also recognise the agency of community members as active collaborators in social protection instead of mere recipients of humanitarian aid.

The need for holistic programming should also be highlighted, in order to maximise the outcomes of child-related social protection. Currently, education and food security are treated as two separate and standalone interventions. The categorical separation of activities under the humanitarian cluster approach neglects the interconnectedness of programme objectives (Dickinson 2016), resulting in a lack of coherence and coordination among school-feeding programmes, and health and education programmes. Therefore, humanitarian and development actors with different mandates should further strengthen their collaboration in fostering the effectiveness and sustainability of EiE interventions, in order to prepare for the transition into a more child-centred and structured schooling (Hatløy and Sommerfelt 2017). School meals should be connected to other education- or protection-related interventions to address the needs arising from children's experience living through displacement and conflicts (Meir 2005).

5. Conclusion

School feeding is widely used as a social protection tool in response to emergencies, given its effectiveness, affordability, and feasibility. The peculiar circumstances in FCVAS present both opportunities and challenges to the effectiveness of school-feeding programmes. On one hand, the devastating effects of armed conflicts not only disrupt livelihoods and food production, but also cause displacement of communities and constrain school-aged children's safe access to education. On the other hand, the reconfiguration of dynamics allows school-feeding programmes to restore normality to society and bring the notion of child protection to the forefront during emergencies or in the post-conflict reconstruction phase.

The Sri Lankan experience has amply illustrated the importance of effective school feeding in FCVAS. While there are promising results in improving both nutritional and educational outcomes in the two programmes, the key differences in programme design and transfer modality have very different implications to the sustainability and local ownership of the programme. Community participation and cash-based transfers are especially vital issues to be underscored in future programming for school-feeding programmes.

Nevertheless, given the considerable differences in the duration, character, and intensity of conflicts in FCVAS, school-feeding programmes cannot be replicated without adjustment and adaption to local needs. It should also be acknowledged that school feeding cannot work as a standalone panacea for addressing multifaceted issues arising from protracted crises. In order to restore the normality of children's lives affected by armed conflicts, a holistic and sustainable plan of action for school-feeding programmes should be envisioned, incorporating food security, nutrition, health, and education.

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Learning from Reform: Can the Abolishing of the Agriculture Tax in China be Considered a Success?

Theresa Jacobs

1. Introduction

Each year, the Communist Party (CCP) Central Committee and State Council of the People's Republic of China (PRC) publish what is known as the 'No. 1 Document', outlining the policy agenda for the year. In 2004, for the first time since 1980, the CCP gave agriculture the highest priority, putting farmers' fiscal burden at the forefront (Lü and Wiemer 2005: 320). Initially started in 2000, the main objective of the *Circular on Implementing Pilot Project of Rural Taxation Reform* (Tao and Qin 2007: 20) was to abolish the agriculture tax over the course of a five-year period (Shi and Ye 2018: 522). The agriculture tax was previously calculated 'according to land area and amount of grain production per villager' (Kennedy 2007: 55). At the time, rural taxation in China was highly regressive,¹ putting the burden of the local fiscal budget almost entirely on already poor farmers (Tao and Qin 2007: 26; Imai, Wang and Kang 2010: 407).

The objective with the abolishing of the national agriculture tax was on one hand to eliminate this burden of the Chinese farmer, and on the other to 'streamline local revenue collection and establish a more transparent and efficient provision of services' (Kennedy 2007: 43). This went hand-in-hand with the central government's goals to reduce the personnel and administrative costs of overstuffed township governments² (Kennedy 2007: 57), hoping the reform ultimately would leave more resources to address the deep-rooted regional inequalities between the richest coastal provinces and poorer inland ones.³

However, after more than a decade since the agriculture tax was abolished, regional differences in China continue to cause income inequality. Even though China's decrease in poverty between 1980 and 2013 was the 'most rapid reduction in history' (Jain-Chandra *et al.* 2018: 4), regional inequality continues to be amongst the highest in Asia and in the world (Jain-Chandra *et al.* 2018: 6). This appears to prove that the abolishing of the agriculture tax inherently failed at reducing the peasants' burden in China and to address the regional divide. This paper, however, argues

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- 1 During the 1990s, the poorest group of farmers with an annual income of less than RMB800 (approximately £80) experienced a tax rate of as much as 30 per cent, whereas higher income groups (RMB4,000 and up) only experienced a tax rate of around 10 per cent (Tao and Liu 2005).
 - 2 China's administrative units are based on a three-tier system. The first tier divides the country into provinces, directly under the central government, the second tier divides the provinces into counties and cities, and the third tier divides them into townships and towns/villages (State Council of the People's Republic of China 2014).
 - 3 In 1978, the Chinese leader Deng Xiaoping implemented the 'reform and opening up' policy, triggering rapid economic growth in China. However, the investments favoured coastal cities such as Shanghai, Nanjing, Shenzhen, and Guangzhou, leaving many of the rural areas much more impoverished than their coastal counterparts (Zheng 2018).

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that even though regional inequalities continue to exist, the agriculture tax reforms between 2000 and 2005 did succeed at decreasing the peasant burden, but did not necessarily do so in favour of township governments. This can give valuable learning lessons for how to deal with the problems going forward as the government is still struggling to close the gap between China's richest and poorest provinces.

This paper is organised as follows: first, the paper will outline the fiscal policy on a regional level prior to 2000, then it will briefly analyse the main goals of the agriculture tax reform. The paper will then look at the aftermath of the reform and show whether or not the reform can be considered a success or not. Lastly, the paper will outline three key elements that need to be carried forward for future tax reforms.

2. Failing the countryside

Today, the PRC's fiscal expenditures are one of the most decentralised in the world (ADB 2014: 1), but the country has made great strides in recent years to make the tax code more centralised, transparent, and efficient (Gurriá 2018). This becomes especially clear when comparing the tax system to the mid-1990s and early 2000s when local governments had heavy expenditure responsibilities in terms of public services, education, and health care (World Bank 2002: 35). This was a result of an industry-oriented and urban-biased development policy implemented by the central government in Beijing in order to 'extract huge resources from the countryside' (Ye 2015: 322). Under these conditions, 'central government was able to control and collect more revenue from provinces, but local government at township level had to rely more on self-raised funds to meet local expenditures and provide services' (Kennedy 2007: 48).

A problem with this urban-biased system was that the central government set the same tax rate for every province regardless of how quickly the internal industry grew. This means that provinces and townships could retain very different amounts of money that would then be reinvested into internal service provisions such as health care and education. In order to make up for their deficit, rural township governments started to rely more and more on informal fees imposed on farmers (Tao and Qin 2007: 21). What ensued was a vicious cycle where 'local governments had to recruit more staff to ensure tax collection and to manage the resistance from farmers' (*ibid.*: 20), leaving township governments overstuffed and highly inefficient. Tao and Qin (2007) rightfully argue that 'China's rural direct taxation in the 1990s and the early 2000s failed both in terms of income equity and economic efficiency' (*ibid.*: 20), making the period 'between 1994 and 2002... the worst time for peasants' (Ye 2015: 322).

Another way the inefficiency of the early 2000s tax system becomes clear is the amount of overlapping expenditures (World Bank 2002: 39; Kennedy 2007: 47). Known as the *tiaokuai maodun* (条块矛盾) or 'town and country management contradictions', many public services such as education funds were managed both by the township as well as the county, leaving a large problem of accountability. For example, within education the county 'manages the salary and hiring of village elementary school teachers, while the township is responsible for the maintenance of elementary schools and the standards of living subsidies for the teachers' (Kennedy 2007: 47). The problem with such a system was that the subsidies vary greatly depending on how wealthy a township was, creating different standards of education depending on the region.

Furthermore, if a township relies almost entirely on agriculture, all the financing would come from taxing farmers that are already struggling to survive. This means that under the old tax system, 'the relatively immobile peasants in China bore much heavier fiscal burdens than the capital owners' (Ye 2015: 521). On top of this, 'local governments and officials [turned] to predatory behavior' (Day and Schneider 2018: 1228), in order to make up for the financial shortcomings local departments experienced. Data from that time show the amount of 'rural fees and charges were almost twice as large as that of agriculture taxes' (Imai *et al.* 2010: 401). These fees were often arbitrarily imposed based on local government financial needs and 'more numerous than "hairs on an ox" ' (*ibid.*: 401). China's rural farmers became increasingly frustrated with this system and 'rural protest concerning taxation in particular soared during this period' (Day and Schneider 2018: 1227), so much so that the protests 'started to threaten social stability and even endanger the state's political legitimacy' (Tao and Qin 2007: 20). Hence, the unrests were one of the main incentives for the central government to implement rural tax reforms.

3. A pro-people approach

In 2000, the first talks emerged about decreasing and potentially abolishing the agriculture tax for China's farmers. This was in order to start shifting the responsibility of public services to the central government, relieving the pressure on local governments for raising funds. By 2002, the reform was in full force, which can mainly be attributed to China's leader Hu Jintao who at the time spearheaded the concept of the 'Harmonious Society' (*hexie shehui* – 和谐社会) (Chan 2010: 821). This inclusive vision was introduced in order to directly deal with 'the social disparities and conflicts that were induced by rapid economic development in China' (*ibid.*: 821).

President Hu's main theme with the concept was to introduce various 'pro-people' policies (Lü and Wiemer 2005: 321) including, but not limited to 'rural development, regional development, employment, education, medicine, and public health, taxation, and fiscal policies' (Chan 2010: 821). Seeing that, by 2003, 'the revenue share of the agriculture tax in China's total fiscal budget remained small [with] just 1.7 per cent' (Lü and Wiemer 2005: 320), it seemed like an easy tax reform to initiate that would also solve an array of problems as mentioned above. The central government was eager to regain control of the local budget at this point and paired the reform with centrally coordinated revenue sharing, which would alleviate the pressure on local revenue collection. This should directly improve the lives of the rural population and give rise to a 'new countryside' as the government coined it.

The implementation worked as follows: during the first phase of the reform, 'local governments were gradually forbidden from collecting any agricultural fees because such fees [were] almost entirely outside the central government's control prior to the... reform' (Shi and Ye 2018: 522). In order to compensate for the local revenue shortfalls, in 2002 and 2003, the central government 'transferred RMB17.9bn and RMB30.5bn respectively' (Tao and Qin 2007: 21) to agriculture-based regions. By 2004, the reform entered into the second phase in which it was made clear that the ultimate goal was to terminate agriculture taxation within five years. Reforms moved very quickly and by 2005, the tax was already abolished in 28 provinces, with heavy reduction in the remaining three provinces. By the end of 2005, all provinces officially abolished the agriculture tax, which had endured for more than 2,600 years of history (Shi and Ye 2018: 522). Similarly, compensation continued to increase throughout 2006 in order to help rural provinces cope with the reform measures, and township governments were heavily downsized in order to cut expenditures.

4. Success or failure?

Can the rural tax reform be considered a success? On one hand, it is now clear that the compensation from upper-level governments to local governments 'could not sufficiently compensate for Chinese county governments' budgetary revenue reduction' (Shi and Ye 2018: 520). This was because before the tax reform, the agriculture tax contributed around '30 per cent of county revenues' (Kennedy 2007: 56) in rural areas. As an immediate response, local governments found various ways to cope with the shortfalls. Two of the most common ways were not to transmit the news of the reform to villagers in order to continue as before and to create new informal fees with new names (Imai 2010: 402).

This especially affected education, because part of moving public service responsibilities to higher government meant that suddenly township governments were no longer in charge of providing teachers with living subsidies. This further eroded teacher salaries, which were already low compared to other professionals (Kennedy 2007: 50). This is crucial, because education is an important driver of income inequality between China's urban and rural regions (Jain-Chandra *et al.* 2018: 8). The International Monetary Fund (IMF) found that 'the share of total income inequality accounted for by the rural-urban gap stood at 44 per cent in 1995 and increased further in 2007, to then decline to 34 per cent in 2013' (Jain-Chandra *et al.* 2018: 9). In short, income inequality triggered through the urban-rural gap did not immediately decrease following tax reform; however, the shortfalls of local budget can be seen as an immediate aftershock rather than a sign of long-term failure. Today, the differences in income inequality accounted for by differences in education of the household head declined from 32 per cent in 2007 to 26 per cent in 2013, showing moderate success (Jain-Chandra *et al.* 2018: 9).

As already mentioned, another goal of the abolishing of the tax reform was to make township governments more efficient and to fight against the perpetual trend of overstaffing. One way to deal with the problem was to initiate another policy reform in conjunction with the tax reform. The reform was aimed at town merging (Shi and Ye 2018: 523), which on one hand helped absorb government employees into other government branches and on the other hand to reduce administrative units (Kennedy 2007: 44). This reduced administrative costs significantly and 'streamlined local revenue collection' (Kennedy 2007: 43). Even though local governments were suddenly stripped of a major income source with the reform, the burden of the peasants fell significantly.

Tao and Qin (2007) found that between 2000 and 2004 alone, there was a 70 per cent decrease in tax burden for the Chinese farmer, so the reform did lead to an overall reduction of the rural tax burden. This also helped the central government re-establish its political legitimacy following growing rural unrest. The problem before lay in the lagging 'governance capacity' (Bernstein and Lü 2008: 94), which was a result of the coercive methods used by local governments to extract resources from farmers. This directly 'undermined the quality of governance' (Moore 2008: 30) and the 'elimination of the agriculture tax marks a fundamental reorientation of relations between state and peasants' (Lü and Wiemer 2005: 322). Not only did the central government regain control of public service responsibilities, through the reform it was also able to regain control of township governments' fiscal policies. In other words, the tax reforms abolishing the agriculture tax were not so much about the actual tax as about the relationship between the central state and its rural citizens, which previously had been obstructed by inefficient and corrupt local governments.

The understanding that the tax system at that time was too regressive started an important change of mentality in central government which affected many of the tax reforms that followed suit. In recent years, the central government of China has come to understand that 'adjustments in fiscal policy promise to be an important instrument in addressing inequality developments' (Jain-Chandra *et al.* 2018: 16). Even though the change has been modest, China has experienced a decline in income inequality since 2008, which definitely cannot all be attributed to the tax reforms in the early 2000s, but acknowledging the importance of farmers' livelihoods symbolised an important step in the right direction.

5. The importance of outcomes over inputs

Going forward in addressing regional inequalities, there are lessons to be learned from the abolishing of the agriculture tax. There are three overall elements which ensure the success of fiscal policies in China. Firstly, the fiscal policy has to be re-centralised in order to reform an overly complex system with too many government levels involved. It is essential to decrease the size of township governments in order to make them more efficient and to establish a direct relationship between citizens and top-level government. Secondly, public service provisions and their access should not solely be the responsibility of townships, because government income varies so greatly in China based on the region. Even though education was addressed during the early 2000s, the current problem lies with access to health care. The 2018 study by the IMF found that 'the disparity in the number of hospital beds per 1,000 people has increased significantly between 2004 and 2014' (Jain-Chandra *et al.* 2018: 19). Initial response by the government is to increase funds to poorer regions, but oversight has to be ensured in order to guarantee outcomes.

This also relates to the third point, which is to focus on outcomes rather than just inputs. Transferring funds to rural regions will not necessarily decrease income inequality. For example, the abolishing of the agriculture tax has had positive effects on decreasing the peasant burden; however, income inequality has only marginally decreased since its peak in 2013 when it was among the most unequal countries in the world (Jain-Chandra *et al.* 2018: 20). By being more output-oriented, the government can increase the progressivity of the contribution every province has to make and this also will decrease the pressure on rural governments to catch up with flourishing coastal provinces.

6. Conclusion

Overall, this paper has shown that the abolishing of the agriculture tax between 2000 and 2005 was an important testing ground for the CCP in order to regain control of the local budget. This was crucial because the Chinese economic boom which started in the late 1970s created enormous regional inequalities. On top of this, industry- and urban-biased reforms left rural governments stripped for money, yet they were still responsible for providing social services such as health care and education. Before the reform, the tax system was highly regressive, putting the financial burden on the Chinese farmer in terms of contributions that had to be made to the government. Not being able to make ends meet, rural township governments in China started to use coercive methods to extract money from farmers, triggering widespread rural unrest in China. The tax reforms introducing the abolishing of the agriculture tax successfully addressed this peasant burden and managed to re-establish a positive relationship between the state and the citizen. Even though regional inequalities continue up to the present day, the reform can be considered a success because it taught the central government important lessons for future fiscal reforms. Firstly, township governments have to be efficient and small in order to simplify an overly complex system. Secondly, township governments cannot solely be responsible for public service provisions, and lastly, the tax system has to be more progressive in order to decrease the pressure on rural governments.

These are three important elements of success learned from the reform of the agriculture tax. As mentioned earlier, the overall contribution of the agriculture tax to the total budget was only 1.7 per cent (Lü and Wiemer 2005: 320) so it was the ideal testing ground for the central government to implement changes. Hence, the abolishing of the agriculture tax can be considered a success even if it did not solve the continued regional inequalities. What is most important is that the reforms of the early 2000s created an important understanding which can now be applied going forward.

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In What Ways Has Popular Mobilisation Around Food Issues Shaped, and Been Shaped By, Food Policy?

Wil Hopson

1. Introduction

Since there have been systems of government, there have been popular mobilisations around food issues. Whether in the form of food riots or long-term movements of protest, food has always represented a fundamental element of the social contract (Patel and McMichael 2009). It is what the Tunisian scholar, Larbi Sadiki, calls the 'democracy of bread' (cited in Bohstedt 2014: 17) and it is the idea that, at the very least, national governments are expected to provision those who consent to their rule, with the apparatus to access food within their means.

The basic tenet remains as it has always been. Reports of English rioters in the eighteenth century declaring that they would 'rather be hanged than starved' (Bohstedt 2014: 6) resonate with declarations from protesters in modern Haiti that if '[we are] not killed by bullets, we'll die of hunger' (Guyler Delva 2008). Technical fixes, such as the retraction of a tax or the increase of a subsidy, are progressively less effective in the face of the structural hegemony and growing inequality that defines the neoliberal development era. Food issues today run far deeper than nationally dictated policy, although the national governments which preside over them remain actively complicit in perpetuating the structures that breed them.

Popular mobilisation remains, as Hobsbawm (1952: 58) said, a form of 'collective bargaining' but the frontiers have been moved to incorporate the globalised system within which they operate. Bohstedt (2014) argues that what is expected of national governments is legitimised through a shared memory of expectation, but today, these memories have been subverted by the imposition of a world order that transcends traditional boundaries of national politics. As a result, various forms of mobilisation across the globe have been forced to shift their focus and redefine what it means to protest, challenging not only national food policy but also a global food regime.

Throughout this essay, I will use various terms to refer to popular mobilisation. Collective action, social movements, and riots will be discussed as I consider the different ways in which people mobilise. Alongside this, it is important to distinguish between a technical and a structural fix, as the distinction provides an important thematic backbone of my argument as to what is most effective on a policy level. By technical fixes, I mean clear changes in policy related to specific issues. When I discuss structural change, I mean the strategy of challenging the ideological and

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political framework that informs the decisions of the policymakers themselves. Each approach has had varying degrees of success and failure, details of which will be articulated throughout this paper.

To begin with, I will explore some of the common themes around modern food issues that have informed protests and movements ideologically in their pursuit of change. I will then look at the unique conditions of a food riot and consider their success in bringing about lasting change. In the final two sections, I will explore the social movement La Via Campesina and the role it has had in mobilising a transnational movement in opposition to the global food regime. I will finish by outlining the success of the movement and briefly consider its strengths, and possible weaknesses, in instituting policy shifts locally, nationally, and internationally.

2. Neoliberalism and food regimes

The idea that the market is the great leveller of global coexistence is one that permeates, defines, and justifies the neoliberal agenda that has defined the development narrative since at least the 1980s. The reality appears to be very different. McMichael (2008: 220) states that today at least 2.5 billion people find themselves 'immiserated by the corporate food regime' as we see the consequences of said regime close in around rural and urban communities. Instances of this come from far and wide. Africa, for example, came from a position of near self-sufficiency in the immediate post-war period to today, relying upon imports for around 25 per cent of its food needs (Patel and McMichael 2009). Indonesia, on the eve of the conception of the World Trade Organization (WTO) in 1995, was in the top ten rice-exporting nations. Three years later in 1998, it was the world's largest rice importer (McMichael 2008). It is this growing reliance on foreign imports that underpins many of the issues that have become key points of contention amidst popular movements around the world.

Much of the opposition to the neoliberal agenda over the past 30 years has been fuelled by the commodification of agriculture that is an inherent feature of the dominant food regime. Harriet Freidman (cited in Giménez and Shattuck 2011: 110) defines a food regime as a 'rule-governed structure of production and consumption of food on a world scale'. Patel and McMichael (2009: 15–18) label the current food regime we find ourselves in as a 'corporate food regime'. This is a system that, through leveraging the power and centrality of the market, prioritises extracting profit from agricultural systems, with little consideration for the communities that inhabit them or the environments that sustain them. Institutions such as the International Monetary Fund (IMF), the WTO, and the World Bank, whose core principles embody this market-centric message of neoliberalism, have supported and legitimised this regime. The pushback against this global system has required a global response.

Policies that undermine the basic rights of the population to provision themselves at a culturally and nutritionally acceptable level have provided a touchstone for the global solidarity we see today. Whilst every movement cannot be said to be imbued with a solid ideological focus, progressively we do see the grievances of these movements levelled at similar antagonists, albeit it through different policies and channels (Bush and Martiniello 2017). Mobilisation today transcends traditional peasant politics and finds new grounding in transnational solidarity with common causes (McMichael 2008). It is important to understand what these causes are and how they are being leveraged and by whom, and also what policies they are looking to promote and ultimately enact.

One major point of contention is the Structural Adjustment Programmes (SAPs) imposed by the IMF in the 1980s (Borras 2010). In order to bail out states on the brink of financial collapse, austere terms were offered in return for loans. These included the lifting of protective tariffs on imports and deep cuts to subsidies for foodstuffs and agriculture (Bohstedt 2014). Markets were flooded with cheap grain, the price of which was skewed by continued subsidisation in nations such as the USA. This pushed agricultural populations away from their traditional means of subsistence, supplanting traditional foodstuffs with cheap, often less nutritious foreign alternatives (Desmarais 2002). These cuts were met with widespread protests across the world that have come to be known as the 'IMF riots' (Walton and Seddon 1994). The issue with imposing global policies that breed oppression and inequality is that the reactions amalgamate themselves in a global context to combat it (Bové and Dufour 2002). A number of new frames have emerged in response to this.

One frame that has become especially prevalent in the approach of food movements is the human rights frame. Human rights are broadly defined by Suárez (2013: 240) as a 'right that is inherent to human beings without any discrimination' and the framing provides a space within which to reformulate understandings and challenge the hegemony of the neoliberal food regime. Stammers (cited in Hoddy and Ensor 2018: 75) argues that rights framings 'render power visible' and allow injustices to be brought to light and used to the benefit of opposition movements. This has proved crucial in some of the successful movements that have mobilised to claim rights otherwise unacknowledged and unclaimed (Borras 2010). Landless people in Brazil (Hoddy and Ensor 2018) and Honduras (Suárez 2013: 242) have invoked this framing to successfully claim land rights in their respective countries. What the human rights frame has proved able to do is inform and underpin movements that may not have otherwise found validation within a national or local context.

Campaigns against importing low-priced, highly subsidised foods (dumping) in the global South and against genetically modified organisms and transgenic seeds in the global North are also evocative of the modern focus of movements (Desmarais 2002). Solidarity, shared experience, and a desire to displace the incumbent food regime in favour of an approach that puts decisions in the hands of the people are the central features of modern collective action. This argument brings in many of the elements that underpin many modern instances of popular mobilisation, especially from a protracted and sustained popular movement perspective. However, not all protests fit neatly into this box, even if structurally they may share many of the characteristics and causes of their more organised contemporaries.

3. Modern food riots

Influencing food policy through a riot on the streets is a tried and tested way to incite change. It is estimated that 30 countries experienced some form of rioting between 2007 and 2008 (Patel and McMichael 2009: 9). The root causes of these, many of which are discussed in the previous section, were secondary in the collective consciousness of the rioter. Their prime motivations appear to have been far more grounded in price spikes and a visceral response against the subversion of the social contract that underpinned the relationship between the governed and the governing.

In 2008, the world was in the midst of the worst financial crisis of modern times. Food has progressively found itself dragged into loosely regulated commodity markets (Patel 2013) and its price has become intertwined with energy prices (Bush and Martiniello 2017: 196). As a result, food systems have become closely linked to the fate of wider financial markets. Between 2007 and 2008, the global price of maize increased by 130 per cent whilst rice experienced a 75 per cent increase (Patel and McMichael 2009: 21). Whilst 'developed' economies of the global North were better positioned to absorb these spikes, the impact felt by the consumer in the global South was far more pronounced. Rioters from Port-au-Prince to Cairo took to the streets, both hungry and angry at what they saw as a fundamental failure on the part of their governments to uphold a core element of the social contract – access to food.

Going back to the idea of an 'IMF riot', it is interesting to consider how these protests fit into this model. Whilst global dependence on international food markets and the rollback of national food and agricultural subsidies may be important structural causes of these riots, it is clear that much of the motivation that took rioters to the streets was the perceived injustices of more visible policies. In Cameroon, for example, it was a dramatic rise in the price of fuel that saw protesters take to the streets (Schneider 2008), whilst in Burkina Faso, it was the apathy of the government and the lack of official channels within the apparatus of the state to voice grievances that led to mass mobilisation (Harsch 2008). So, whilst the 'IMF riot' frame may be a useful category for the outside observer reflecting upon the broader causes of protest, it does not seem to have been echoed in the sentiments of those across the world who took to the streets during this period.

The outcome of these riots highlights the willingness of governments to act in the face of a challenge to their power. As Thompson (1971) highlights, food riots open up a 'political space for bargaining'. Patel

and McMichael elaborate on this, arguing that those moments of uprising stimulate 'the recognition of the "moral economy" underlying food provisioning, a moral economy asserted by collective action at the same time as it imposes the technologies of rule' (2009: 23). In order to maintain their mandate, governments were forced to act, and many did in a variety of different ways, with technical fixes largely defining their solutions.

The Egyptian army were pressed into baking bread as the government scrambled to enact policies that would see subsidies on food and fuel raised by 20 per cent during the period (Bohstedt 2014). In El Salvador, 350,000 bags of fertiliser and improved maize seeds were distributed as part of a US\$115m scheme aimed at providing incentives for small farmers (Schneider 2008). Despite these often quick-fire responses, regimes were still deposed, often as a direct or indirect consequence of the riots. Egypt saw President Mubarak ousted, whilst in Haiti, the Senate quickly voted to fire their prime minister. These depositions are evocative of how fundamental the ability to provision a population is in validating regimes. It illustrates that populations envisage power residing with their national government, the traditional administrators of power, not with the IMF or the WTO, the institutions whose policies appear to have compromised the ability of national governments to fulfil their mandate in the first place.

The inability of national governments to enact lasting change brings an important observation to the fore. Whilst it would be wrong to imagine them as powerless victims, blameless in their own integration into the 'market-driven economy' (Desmarais 2002: 91), their ability to enact structural change has been significantly curtailed by the power of global institutions. The power of these institutions does not depend upon the 'social contracts they have shredded' (Bohstedt 2014: 16), but rather finds its validation in the debt structures and sanctions that can be imposed and are ratified by the Western-dominated international community (Suárez 2013).

In order to make a genuine and lasting difference, it is necessary to challenge the structures that underpin the food regime. As effective as a food riot may be at enacting technical shifts in policy,¹ changes are often superficial and abandoned once the momentum has passed and order restored (Martínez-Torres and Rosset 2010). This reflects both the nature of governments and their inability, and possibly unwillingness, to truly challenge and subvert the structures that simultaneously both shackle and sustain them.

1 For a comprehensive breakdown of the food riots and their outcomes from 2008, see *We Are Hungry! A Summary Report of Food Riots, Government Responses, and States of Democracy in 2008* (Schneider 2008).

4. La Via Campesina and social movements

At the onset of the 1990s, the sharp edge of neoliberalism and a corporate food system was coming to bear as the consequences of the SAPs became clearer. Even as late as 1997, Chalmer, Martin, and Piester (cited in Desmarais 2002: 92) argued that they 'could find few signs of a sustained, broad based popular movement against neoliberalism, and much less around an alternative project'.

The emergence of La Via Campesina (LVC) in 1993 in response to the growing influence of agribusiness on the development agenda proved to be an important turning point in the global struggle. In their own words, LVC are 'an international movement bringing together millions of peasants, small and medium size farmers, landless people, rural women and youth, indigenous people, migrants and agricultural workers from around the world' (La Via Campesina 2018).

Working from a pluralistic framework,² they have mobilised grass-roots movements into a transnational collective with an international presence on the world stage. In the process, it has successfully united diverse causes, forcing neoliberal institutions and global actors to acknowledge the new spaces within which the movement operates.

Where food riots are often reactionary, spontaneous, motivated, and appeased by short-term fixes that alleviate perceived injustices, social movements such as LVC operate from a far more proactive position. Yúdice (cited in Martínez-Torres and Rosset 2010: 150) goes as far as to call the movement 'the most innovative actor in setting agendas for political and social policies'. It is difficult to disagree with the premise of this statement. To date, LVC have assisted in toppling governments in both Bolivia and Ecuador, a real sign of the growing power of the movement (Edelman 2005: 337). What began as a defensive movement aiming to reclaim the voice of the small farmer and agricultural community amidst the deafening noise of agribusiness, has today become an offensive movement that uses that voice to attempt to shape policy along its own lines.

There are similarities with classic food riots; indeed, LVC still sees mobilisation en masse as one of its 'principal strategies' (Borras 2010: 794). The crucial difference is the international cooperation that defines and informs their actions. Every year, hundreds of thousands of farmers

2 For more on pluralistic approaches to development, see *On Pluriversity* (Mignolo 2013).

and agricultural workers take part in collective action across the world in a show of solidarity with the common causes of LVC (Desmarais 2002). Typically, these causes are defined by the common desire to stabilise global food prices, redistribute power more equally, pursue sustainable agricultural practices, and, more broadly, challenge the enduring and oppressive jurisdiction of neoliberal institutions such as the IMF and the WTO. The LVC rejects an agenda that accepts short-term technical fixes to abate their protests. Action is sustained, dynamic, and framed through a concept that they themselves pioneered in 1996 – food sovereignty.

According to the LVC definition, food sovereignty is ‘the right of each nation to maintain and develop its own capacity to produce its own basic foods respecting cultural and productive diversity’ (cited in Karriem 2009: 322). The framework rejects the commodification of food by the corporate food regime, and uses the human rights frame outlined earlier in this essay to define it as a community right (Clapp 2013). Whilst the definition provides a specific frame, content-wise, the application is very malleable. We can see this from an anecdote by Laura Carlsen (cited in McMichael 2008: 221) from the Via Campesina conference in 2006. She tells a story of how maize farmers from Mexico and rice farmers from Thailand found solidarity in each other’s causes after they identified that the presence of transnational corporations was undermining their sovereignty over their core staple foods.

From these perspectives, we can see how different approaches are being used by LVC to combat the policies of an overarching global agenda dictated from above. This determination to imagine alternative futures from a global perspective is what Edelman labels ‘globalization from below’ (Edelman 2001: 304). The question remains, however, that, despite the success of the movement in unifying transnationally, how successful have they actually been in institutionalising change?

Throughout the final section of this essay, I will outline the approach LVC has taken in institutionalising change locally, nationally, and internationally. Where perhaps we see a heightened awareness of the corruption and inequality of the food system globally, the challenge is not how united a cause can be but how it brings this unity to bear in order to leverage its position and incite tangible, structural, and lasting processes of change.

5. The implementation of change

Karl Polanyi, the economic sociologist, made a bold prediction in 1944. He posited that the growing 'self-regulating' markets and overly liberalised food regimes would not crumble from within, but rather would be ousted by social pressure from below, despite what would seem like insurmountable structural strength (Polanyi 1944). With LVC, we can see this process beginning to unfold. Despite the strength of the corporate food regime, its inequalities and failures are beginning to be recognised on a global scale and LVC have been an important contributor to this recognition.

Having explored the framework used by LVC, it is important to understand their strategy in institutionalising changes and identify where this has been successful and where it has been ineffective. As a grass-roots movement, its practical success has largely come, at least on a policy-based level, on a local and national stage (Bellinger and Fakhri 2013). Whilst there is an acknowledgement of the need to institute change internationally, there is pragmatism to the approach of LVC. Paul Nicholson, an LVC activist, highlights how 'direct dialogue with national governments may be, strategically, more accessible' than attempts to mould international policy and rely on the effects trickling down into the national political landscape (Nicholson cited in Claeys 2015: 456). Through movements associated with LVC, we can see this strategy work effectively as a means of instituting change.

The MST (Brazil's Landless Workers' Movement) are a particularly successful example of a national movement utilising a number of different frames and approaches to achieve and engrain policy changes. They have invoked the aforementioned human rights frame (Hoddy and Ensor 2018) as well as using withstanding legal apparatus to compel governments to legitimise their claims for land (French 2007). Alongside this, they have used education to imbue members with an understanding of the injustice of the system as well as ways to mobilise against it (Diniz-Pereira 2012). Not averse to taking to the streets, the MST have for 30 years represented the evolution of collective action in the face of neoliberalism and dominant agribusiness. Their partnership with LVC has seen their struggle written into an international narrative that illustrates the injustice of the corporate food regime. Herein lies the real strength of LVC.

The movement has provided a crucial platform from which grievances can be articulated and pressure applied upon the international community, as well as instilling new groups with the impetus to mobilise. In their own

words, LVC are 'both an actor and an arena of action' (cited in Borras 2010: 795). So far, in pursuit of 'concrete and feasible alternatives, here and now', there is an argument that less effort is being put into the 'regulatory apparatus' required to enable said alternatives to endure (Claeys 2015: 456). As Claeys (2012) outlines, this is in part due to their refusal to bring the WTO to account and challenge their legal validity through engagement. This would undermine these institutions and bring into question their legitimacy to continue to perpetuate the structures that underpin them.

In counter to this, it is clear that LVC has penetrated international consciousness. Since the 2008 riots, even free-market advocates, such as the World Bank and IMF, have begun to question the wisdom of such dogmatic adherence to neoliberal principles (Bohstedt 2014). Whilst the impact of LVC cannot be considered the direct cause of this shift, the issues it has brought to light have certainly formed an important part of an emergent alternative vision. This ideological shift may not have initially translated into clear structural policy shifts, but the acknowledgement that neoliberal free markets may not be the answer represents significant progress. Movements exclusively revolving around food issues will, after all, not bring about the structural changes necessary to implement a more equal, sustainable, and accountable world order on their own. The intersectional nature of grievances against the neoliberal agenda necessitates pressure from multiple sections of global society, yet if popular mobilisation around food issues can play a role through solidarity, acknowledgement, and action then that can surely only be a good thing.

6. Conclusion

Wherever you go in the world, issues around food have the ability to incite frustration, anger, and eventually, protest. Hunger is the same whether you are in Haiti or Egypt, and the ability of governments to abate it has been shown throughout this essay to be a crucial feature in underpinning the social contract.

As the world has experienced globalisation, neoliberal institutions such as the World Bank and the WTO have attempted to homogenise the world food system and appropriate market control for their own causes. As a result, we have seen populations across the global South and North lose access to their traditional means of production and lose sovereignty over their own consumption choices. As Polanyi (1944) highlighted, the backlash may have been predictable but the contexts within which it has occurred have not.

It appears the days are gone where governments can appease populations with the implementation of a technical adjustment to a policy. Movements have become too well informed and operate from an ideological perspective that rejects the legitimacy of the corporate food regime. From this position, structural change is pursued through challenging institutions that prop up the regime. The situation today is still one in flux, evolving to adapt to the changing climate of the global food system.

Popular mobilisation is shaped by a circular process of constant adjustment. The prevailing injustice of the incumbent regime has shaped the responses we have seen, and the consequent action has gone a long way to reimagining responses to food issues from a global perspective. Where these responses may, in many cases, remain less than satisfactory, it is a testament to the strength and power of collective action that policies are beginning to reflect key elements of what were once considered subversive ideologies. The struggle will persist, and the monolithic imposition of the corporate food system will continue to loom large, and popular mobilisation, I believe, will remain a central component in this struggle to readjust its parameters.

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'Drought as War' in Northern Uganda: Exploring the Complex Relationship Between Climate Change, Scarcity, and Conflict

Mikhail Moosa

1. Introduction

That climate change will increase the incidence of violent conflict is a common claim made by both policymakers and climate change activists. I aim to question and critique the simplistic assertion that climate change will cause increased violent conflict, showing how the relationship between climate change, scarcity, and violent conflict is neither straightforward nor unidirectional. Moreover, as the evidence to support the 'scarcity–conflict'¹ thesis is disputed and contested, the multidimensional relationships between conflict and scarcity are overlooked. I argue that it is imperative to explore the inverse relationship: how conflict influences scarcity in an environment of climate change, with a focus on vulnerability.

Section 1 outlines the primary assertions of the scarcity–conflict thesis, specifically focusing on concerns surrounding population growth and environmental scarcity. Section 2 presents the major critiques of the scarcity–conflict thesis, primarily focusing on its appealingly linear explanation of scarcity and conflict, and its theoretical limitations. Section 3 focuses on the case study of post-war northern Uganda, specifically the livelihoods of the Acholi people, where the scarcity–conflict thesis has been inverted to a conflict–scarcity relationship and villagers' vulnerability to the variable climate has been exacerbated. In conclusion, I argue that climate change could cause greater resource scarcity and *could* be one of many causes of armed conflict, but it is prudent to question the deterministic relationship between resource scarcity and armed conflict, examine the effects of conflict on scarcity, and explore the more fundamental role of vulnerability to climate variability and uncertainty.

2. The Coming Anarchy and environmental scarcity

This section outlines the central ideas of two influential texts supporting the climate–conflict thesis (Kaplan 1994; Homer-Dixon 1999). The first subsection explores Kaplan's cataclysmic prediction that 'overpopulation' will cause social unrest in developing countries, while the second subsection focuses on Homer-Dixon's claim that environmental scarcity can be a primary cause of violent conflict. Finally, I update these theses with the introduction of climate change, and the threat it poses to existing pressures of environmental scarcity. In short, a scarcity of resources coupled with a growing population and compounded by climate variability *could* produce violent conflict.

2.1 Overpopulation

Kaplan (1994) claims that in economies where poverty is widespread, resource scarcity will increase through rapid population growth, inevitably leading to social breakdown and conflict. Therefore, surging population growth, specifically among poor, rural people, is a significant trigger for social and political unrest. Following Malthusian logic ([1798], 2008), where rates of population growth exceeding rates of food production will inevitably lead to misery for increasingly large numbers of people, Kaplan (1994) predicts that countries faced with growing population pressure and resource scarcity are likely to face civil strife and 'split into several pieces' in the next few decades. Moreover, Kaplan attributes the cause of 'soil erosion', 'desertification and deforestation', which has led to 'more flooding and mosquitoes', to 'overpopulation', specifically the influx of destitute rural populations into increasingly populated cities (*ibid.*). In Kaplan's argument, population growth exacerbates existing resource scarcities and people will resort to violence to secure their livelihoods.

2.2 Environmental scarcity

Homer-Dixon (1999) highlights the overlooked role of *environmental scarcity* in driving violent conflict. He argues that scarcities can 'generate severe social stresses within countries, helping to stimulate subnational insurgencies, ethnic clashes, and urban unrest' (*ibid.*: 12). More specifically, Homer-Dixon identifies three primary means by which scarcity leads to conflict: (1) *supply*-induced scarcity, where 'depletion and degradation produce a decrease' in the total resources; (2) *demand*-induced scarcity,

where 'population growth and changes in consumption behaviour can also cause greater scarcity'; and (3) *structural* scarcity, which causes a 'severe imbalance in the distribution of wealth and power' (*ibid.*: 15). Using the frustration–aggression approach popularised in political psychology (Gurr 1970), he argues that 'increased scarcities can reduce or constrain economic productivity', which may cause the affected people to 'migrate or be expelled to other rural lands or cities', and 'local decreases in wealth can cause insurgencies and rebellion' (Homer-Dixon 1999: 133). In short, a supply-induced scarcity of resources can encourage people to resort to violence to gain more resources, a demand-induced scarcity can facilitate conflict among groups competing over the same scarce resources, and structural scarcity builds resentment by groups with few resources towards those with many resources.

2.3 Climate change

Climate change, and the increased variability and hazardous nature of climates, will exacerbate existing issues of environmental scarcity (Porter *et al.* 2014). Malthusian concerns with exponential population growth, particularly in areas where resources are already limited, are compounded with the knowledge that increasingly variable rainfall patterns and unpredictable weather will create even greater scarcity in subsistence economies (FAO 2008). While the threat of climate change on environmental scarcity is significant, the causal link between climate change and the potential for violent conflict remains one where environmental scarcity, albeit heightened, is the animating factor (USGCRP 2018). In short, instead of the model proposed by Kaplan and Homer-Dixon; that is, *population growth–scarcity–conflict* (Peluso and Watts 2001: 18), the concern that climate change leads to violent conflict becomes a *climate change–scarcity–conflict* relationship. Therefore, to evaluate whether climate change could lead to increased violent conflict, it remains critical to evaluate the validity of the scarcity–conflict thesis.

3. Political ecology

This section presents the 'political ecological' critique of the scarcity–conflict thesis. This section primarily addresses the main critiques of Homer–Dixon's (1999) argument, highlighting its shortcomings, determinism, lack of political analysis, and limited conception of scarcity. Finally, this section addresses Kaplan's (1994) concerns with population growth as a trigger for conflict.

3.1 Scarcity, agency, and conflict

There are four important critiques of Homer–Dixon's thesis, namely: (1) an emphasis on shortage over abundance; (2) determinism; (3) ignoring the politics of distribution and scarcity; and (4) a limited understanding of scarcity. Firstly, Homer–Dixon (1999) assumes that conflict is generated by a lack of access to resources but does not account for how conflict breaks out over an abundance of resources or battling for control over a monopoly (Peluso and Watts 2001). The control of large oil fields has historically been a significant cause of conflict between states, corporations, and political elites (Mitchell 2011), and access to abundant oil reserves continues to stoke violent conflict (Watts 2001).

Secondly, the central assertion that scarcity leads to conflict does not account for the grievances of potential conflict actors or the particular complexities of violence. Homer–Dixon (1999: 27) uses the example of South Africa's 'townships', mass informal settlements burdened by unemployment and poverty, of scarcity leading to conflict. He elides the influence of violent conflict as part of a struggle for political liberation or that townships were created by racist legislation restricting access to urban areas and building significant racial resentment between the population (Magubane 1979; Beinart 2001). Homer–Dixon simplifies conflict as an inevitable outcome of scarcity and fails to account for conflict as 'complex social practice' (Peluso and Watts 2001: 27).

Thirdly, both Homer–Dixon and Kaplan have been criticised for overemphasising the role of nature in generating scarcity (Peet, Robbins and Watts 2011). In both accounts, the environment 'plays a role as a trigger, target, or catalyst for conflicts', but 'the *processes* [emphasis in the original] by which violence occurs are partially explained and often occluded' (Peluso and Watts 2001: 22). The scarcity–conflict thesis assumes that the pressures of supply and demand influence the availability of resources without accounting for the politics of distributing and accessing resources. In short, it is myopic to assume that scarcity is a strictly natural issue, when 'environmental insecurity stems from a failure of politics and governance' (Barnett 2001: 160).

Finally, the scarcity–conflict thesis fails to account for the complexity of the idea of scarcity. Homer–Dixon (1999) implicitly assumes scarcity to be a 'lack of' a particular resource, failing to account for relativist definitions of scarcity (Peluso and Watts 2001), social constructions of scarcity (Mehta 2011), or that 'resources are constructed rather than given' (Robbins 2012: 17).

In short, the scarcity–conflict thesis rests on several simplistic assumptions about the nature of resources, distribution, and conflict, and a critical appraisal of these assumptions reveals the shortcomings of the argument.

3.2 Population pressures

Kaplan's concern with 'overpopulation' is inconsistent. Firstly, an exclusive concern with population growth generating further scarcity precludes an understanding of the dynamics of resource distribution; scarcity is not a natural phenomenon, but a product of economic and political processes (Sen 1982). Secondly, neo-Malthusianism is a mostly outdated model for analysing population growth relative to food production, as resources can be produced at a far higher rate and in a far greater quantity than Malthus feared in the eighteenth century (Trewavas 2002). Thirdly, Kaplan is solely concerned with population growth among the world's poor, despite resource use and exploitation being most common among wealthy people in the West (Malm and Hornborg 2014). Resource scarcity in developing countries is intimately connected to unequal global trade and the way in which countries have been integrated into the global economy (Amin 1974; Wallerstein 2004). In short, while population pressures may be a factor in causing environmental scarcity, there are far greater socio-political dynamics at play in resource scarcity.

3.3 Climate change and conflict

Drawing from the scarcity–conflict thesis, many scholars have attempted to determine whether climate change, in producing environmental uncertainty, will cause violent conflict (Barnett and Adger 2007). In short, the evidence to prove this assertion is relatively contested and disputed (Adams *et al.* 2018). The political ecology critique of the scarcity–conflict thesis invites an examination of the dynamics involved in resource conflicts, specifically vulnerability and uncertainty (Peluso and Watts 2001). Moreover, the relationship between scarcity and conflict is not linear, and an inversion of this relationship allows a closer appraisal of the role of conflict in influencing livelihood vulnerability and uncertainty. Moving beyond a unidirectional approach to examining scarcity, climate change, and conflict, the next section explores the influence of conflict on vulnerability, uncertainty, and scarcity.

4. Beyond scarcity–conflict

This section presents the case of post-war northern Uganda, with a focus on the Acholi people, as complicating the scarcity–conflict thesis. The first subsection presents a necessarily brief overview of the 20-year conflict in northern Uganda, focusing on the debilitation of the local population and environment. Secondly, I explore how the war has devastated the Acholi and their relationship to their environment. Thirdly, I argue that the sustained conflict has increased the population's vulnerability to climate change. Finally, I argue that the case of northern Uganda is indicative of the need to think more contextually and critically when examining the relationship between climate change and conflict.

4.1 War and displacement

Between 1986 and 2006 in northern Uganda, the state's army has been at war with rebel groups, primarily the Lord's Resistance Army (LRA), which aims to contest the state's authority over the north (Branch 2011). The war is emblematic of a 'dirty war', with the LRA launching small strikes on strategic interests and the army decimating tree cover in order to reveal combatants. The causes of the war are deeply contested and debated (Finnström 2008: 8), but the unique ethnic, cultural, and linguistic traditions in the north have presented an obstacle to national integration (Laruni 2015). Despite the antagonistic dynamic between rebels and the state, the 'principal victims are the population within the "war zone" ' (Dolan 2009: 1). Much of the region has been decimated by the protracted periods of warfare, where trees have been cut down, forests have been cleared, and landmines have scarred the landscape.

Both the rebels and the state have engaged in egregious violence, as 'killings, rape, and other forms of physical abuse aimed at non-combatants became the order of the day' (Finnström 2008: 71). Since the late 1980s, the state has sought to establish greater control over the population in the north by forcing their relocation into 'protected zones'. Ostensibly for the protection of the detainees, the state imposed 'its rule by regulating everyday life', including 'food resources and food distribution' (*ibid.*: 144). In 2005, one year prior to the end of the war, Finnström claims 'two million' Ugandans were displaced, including 'more than 90 per cent' of the Acholi (*ibid.*: 133). In the camps, mortality rates were exceptionally high, with some estimates showing over a thousand deaths occurred in the camps each week, mostly through 'curable diseases and malnutrition' (*ibid.*: 133).

Although malnutrition was relatively high before internment, the conditions of the camps exacerbated child malnourishment, where 'a whole new generation was being physically "dumbed down" ' (Dolan 2009: 162).

4.2 Vulnerable livelihoods

One of the primary grievances shared by survivors of the war is their sense of loss over their livelihoods. In 1991, before mass internment, 'subsistence farming accounted for 77 per cent of economic activity and employed around 95 per cent of the population', but by the end of that decade, 'less than 10 per cent of land was being utilised yearly' (Dolan 2009: 119). Before the war, 'many Acholi families kept cattle' while fruit and cash crops were grown for market, but throughout the course of the war, 'most cattle have been looted or killed by the fighting forces' and villagers struggled to grow crops to meet their own needs (Finnström 2008: 34–5). Agricultural and economic conditions were devastated by the war.

The physical degradation of the environment is compounded by the experience of forced containment, where thousands of people lived with hunger and malnourishment in unsafe conditions. Returning to their villages after the war, households lacked the 'physical capacity and strength to re-open fields that had lain fallow for several years' due to malnourishment or the death of family members (Dolan 2009: 187). While villagers often relied on food aid for sustenance in the camps, the state did not provide sufficient support to returning villagers to allow for an effective return to subsistence livelihoods (*ibid.*: 188). The conditions of seemingly permanent devastation, violence, and containment are indicative of the Acholi term, 'bad surroundings' (Finnström 2008). In contrast to 'good surroundings', 'when things are normal, the society thriving, facing and overcoming crises', 'bad surroundings' describe when 'the entire apparatus of the culture cannot cope with the menace any more' (p'Bitek 1986: 27, cited in Finnström 2008: 14). When the Acholi perceive their surroundings to be 'good', 'uncertainty is handled', but in 'bad surroundings', the violence of the conflict has caused a loss of control (Finnström 2008: 12). In short, 'bad surroundings' refers to the sense of vulnerability engendered through the experience of conflict.

4.3 Uncertainty and 'climate change'

The climate of northern Uganda is a highly variable one, where both drought and heavy rainfall are common (Webster, Ogot and Chretien 1992). To survive, the Acholi have developed complex means of subsistence, highly attuned to weather patterns (Cohen 1989). Since the end of the war in 2006, local people have encountered difficulty when reorienting themselves

with the landscape. Branch (2018: S315–17) recounts how returning villagers believed that the landscape appeared 'unfamiliar', 'the environment has become unfriendly', and the frequent droughts are 'commonly viewed as tied up with the violence of war'. Acholi villagers lamented the destruction of the trees, in particular 'the forests' role in attracting rain and retaining water', as 'deforestation has harmed people's broader livelihoods' (Branch 2018: S318). With regard to the climate, uncertainties are 'constructed in relation to social, economic, and political orders, not just natural ones' (Scoones 2019: 25). Through the devastating conflict, the Acholi have become increasingly vulnerable to the uncertainty of their surroundings.

Before the war, the Acholi were well attuned to the naturally variable climate in northern Uganda, but the effects of long-term conflict have impinged on their means of subsistence and resilience to climate variability. Crucially, although climate change exacerbates existing uncertainty, people's vulnerability to greater uncertainties, as well as their capacity to adapt to shocks, are conditioned by historical and political factors (Blaikie *et al.* 2004; Eriksen and Lind 2009). Drought and other climatic shocks in the region should not be 'viewed as an isolated phenomenon', but rather as part of 'much broader regimes of devastation in which the dominant history is one of war' (Branch 2018: S322). In short, the war has devastated the landscape, the camps have debilitated the Acholi, and maintaining a subsistence livelihood is becoming increasingly tenuous. In northern Uganda, scarcity was not the cause but an outcome of violent conflict.

4.4 Re-thinking the dynamics of scarcity and conflict

The case of northern Uganda illustrates a more complex relationship between conflict, scarcity, and climate change than is presented in the scarcity–conflict literature. Vulnerability to climate change, specifically the variability of the climate, is exacerbated by periods of extended conflict and displacement (Eriksen and Lind 2009). Although climate change may play a role in causing greater environmental scarcity and thereby creating greater impetus for conflict, the inverse relationship, where conflict hinders people's capacity to cope with climate change, is also true (Blaikie *et al.* 2004). Going beyond the seemingly intractable debate as to whether scarcity is a primary cause for violent conflict (Adams *et al.* 2018), I argue that it is more prudent to focus on the multidimensional relationships between scarcity, conflict, and climate change, and highlight the centrality of vulnerability to understanding the effects of climate change and conflict.

5. Conclusion

This essay has introduced the arguments supporting the assertion that climate change will lead to an increased incidence of violent conflict, provided a critical reflection of these arguments, and used the case study of conflict and devastation in northern Uganda to highlight the complexity of the relationship between scarcity and conflict. As climate change produces greater variability and unpredictability in weather patterns, subsistence economies are most likely to suffer. However, subsistence economies, as demonstrated by the Acholi, are equally vulnerable to the effects of devastating conflict, which in turn impinges on their livelihoods and creates scarcity. The relationship between scarcity and conflict is therefore not a straightforward or linear relationship. Although environmental scarcity may play a role in inciting conflict, it is not enough, in and of itself, to cause conflict to break out. Furthermore, I argue that it is imperative to pay attention to the inverse relationship, examining the effects of conflict on scarcity, and remain critical of simplistic and universal relationships of causality between complex variables.

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What Does 'Climate-Resilient Development' Mean? A Discussion in the Context of Ethiopia's Agriculture Sector

Atika Suri Fanani

1. Introduction

Current economic development is facing issues such as fast population growth, weak markets, poor infrastructure and service provision, along with weak governance systems, and climate change can make these challenges harder to overcome and thus affect their outcomes (Tanner and Horn-Phathanothai 2014). For instance, climate change enhances the frequency of drought and floods, causing a decrease in agricultural production leading to food insecurity, water scarcity, damaged infrastructures, and a decrease in the gross domestic product (GDP) of countries. Therefore, countries need to find measures to adapt to those impacts and build their resilience to climate change. The concept 'resilience' itself has become the new buzzword in the last decade (Hussain 2013), but the real meaning remains vague and unclear (MacAskill and Guthrie 2014). However, this concept has now been appropriated by the bilateral and multilateral donor organisations (Mitchell and Harris 2012) and has become prominent in development and vulnerability reduction sectors such as disaster risk reduction (DRR), social protection, and climate change adaptation (Béné *et al.* 2012).

This paper will explore the contextual definitions of climate-resilient development (CRD), with Ethiopia as a case study. The topic is chosen because it is critical to evaluate how the concepts of resilience and CRD are defined according to current existing interpretations. Ethiopia was selected for the case study as it is one of the countries negatively impacted by climate change; however, it is also one of the pioneer countries in developing a climate-resilient strategy. Therefore, it is essential to evaluate how CRD is defined in the Ethiopian context as drawn from its government strategies and implemented activities: in this case, in the agriculture sector. It will also be crucial to assess the perspective of Ethiopian farmers of the concept, to see how the meaning of CRD can vary. In principle, I argue that the definition of CRD is determined by the way we define the concept of resilience itself which can be objective or subjective, and that the focus should not be on the definition itself but on what the concept can achieve. In regard to the implementation of CRD in a particular context, it is important to accurately recognise how resilience is understood among the beneficiaries in those surroundings, in order to ensure its effectiveness.

The paper will be organised as follows. Firstly, in the key definition and literature review, I will unpack the concept of resilience with its link to climate change, development, and vulnerability, and how the

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definition of CRD is shaped by the subjective or objective method of resilience measurement. Secondly, in order to explain CRD in a particular context, a case study on Ethiopia will be analysed by focusing on the agriculture sector as one of the main pillars of the government's strategy. I will then draw out the definition of CRD accordingly and also look at how CRD is described from another perspective, that is, of Ethiopian farmers, and the challenges found in the strategy and implementation of CRD as well as some policy implications. Ultimately, I conclude that due to different perspectives in interpreting vulnerability and in measuring resilience, the definition of CRD varies. Although there is no single definition, it may be critical and more productive to look deeper into the individual elements of CRD, enabling it to be adaptable to the local context and more effective for the beneficiaries.

2. Key definition and literature review

As mentioned in Section 1, this paper aims to define CRD in a particular context and, in this case, Ethiopia is chosen as a case study with the agriculture sector as the focus. In order to be able to delineate the concept in that particular context, it is important to first unpack the concept of CRD itself and evaluate each component, and especially the concept of resilience itself.

2.1 Unpacking CRD: resilience and its link to climate change, development, and vulnerability

The term 'climate change' is defined as the change in a large-scale, long-term shift in the planet's weather patterns and average temperatures, as a result of natural processes or human activity (IPCC 2012; MET Office 2019). Climate change impacts are mostly felt by poor people who are more vulnerable to the risk of food insecurity, water scarcity, and other climate-induced disasters, making climate change the biggest development challenge (Tanner and Horn-Phathanothai 2014).

As for development, this concept has been a buzzword for almost 60 years and its definition is still considered to be ambiguous, complex, and elusive (Rist 2007). However, in this paper, development is described as intentional efforts to improve human wellbeing in poverty reduction, health, education, and livelihood diversification (Tanner and Horn-Phathanothai 2014). Given that climate change has major impacts on poor people who are the target of development, as a consequence, it has also influenced the way that development has been shaped (*ibid.*).

Since climate change has become a part of development and that it is essential to reduce the vulnerability of poor people to its shocks, over the past decade, the term 'resilience' appears to have become the new jargon (Hussain 2013) and it is now included as a key development priority and practice (Jones 2019; Mitchell and Harris 2012). Resilience, as a very complex concept, is often used as an equivalent of adaptation and vulnerability reduction (Schipper and Langston 2015); however, it is more related to preparedness, mitigation, response, and recovery (Patel *et al.* 2017). Given that it has various meanings and definitions (Jones and Tanner 2015), there is a lack of consensus on the definition of the concept among development practitioners and scholars (Thiede 2016).

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When discussing resilience in the development context, it is inevitable to come back to the concept of vulnerability. The connection between the two concepts is that to limit the impacts of shocks, in this case, climate change, for poor people, efforts need to be made to move from a vulnerable to a resilient state (Béné *et al.* 2012). According to O'Brien *et al.* (2007), the vulnerability to climate change in development can be interpreted in two ways, resulting in two distinct framings of climate change issues. These framings are outcome vulnerability related to scientific framing, and contextual vulnerability linked to human-security framing that create distinct types of knowledge and accentuate different kinds of policy responses to climate change (*ibid.*).

Resilience has multiple aspects and can be described at individual, household, community, regional, and national levels (Béné 2013; Clare *et al.* 2017). For this reason, Jones (2019) contends that resilience is not the same for all; thus, it is important to compare and evaluate the subjective and objective experience as to how resilience is defined. The IPCC (2012: 5), for instance, describes resilience as 'the ability of a system and its component parts to anticipate, absorb, accommodate, or recover from the effects of a hazardous event in a timely and efficient manner'. Although there are different ways of defining resilience, we can see that there are similar words highlighted in the literature such as adapting to variability and uncertainty, bounce-back, and positive transformation or recovery (Béné *et al.* 2012; Clare *et al.* 2017). In addition, Béné *et al.* (2012) also argue that there are limitations regarding the concept of resilience in tackling poverty, due to its inability to apprehend and reflect social dynamics accordingly, and to take into account power-related connotations of vulnerability. This consequently can generate the risk that resilience cannot be differentiated from adaptation and is perceived as having similar impacts (Cannon and MüllerMahn 2010).

In summary, despite its ambiguous definition and complexity, resilience has the ability to reshape development and provide opportunities to connect sectors, approaches, instruments, and institutions that generally work in silos (Tanner *et al.* 2017). From those definitions of the CRD components, I will discuss next two distinct ways of measuring resilience that will affect the way the concept of resilience is defined, as well as the concept of CRD.

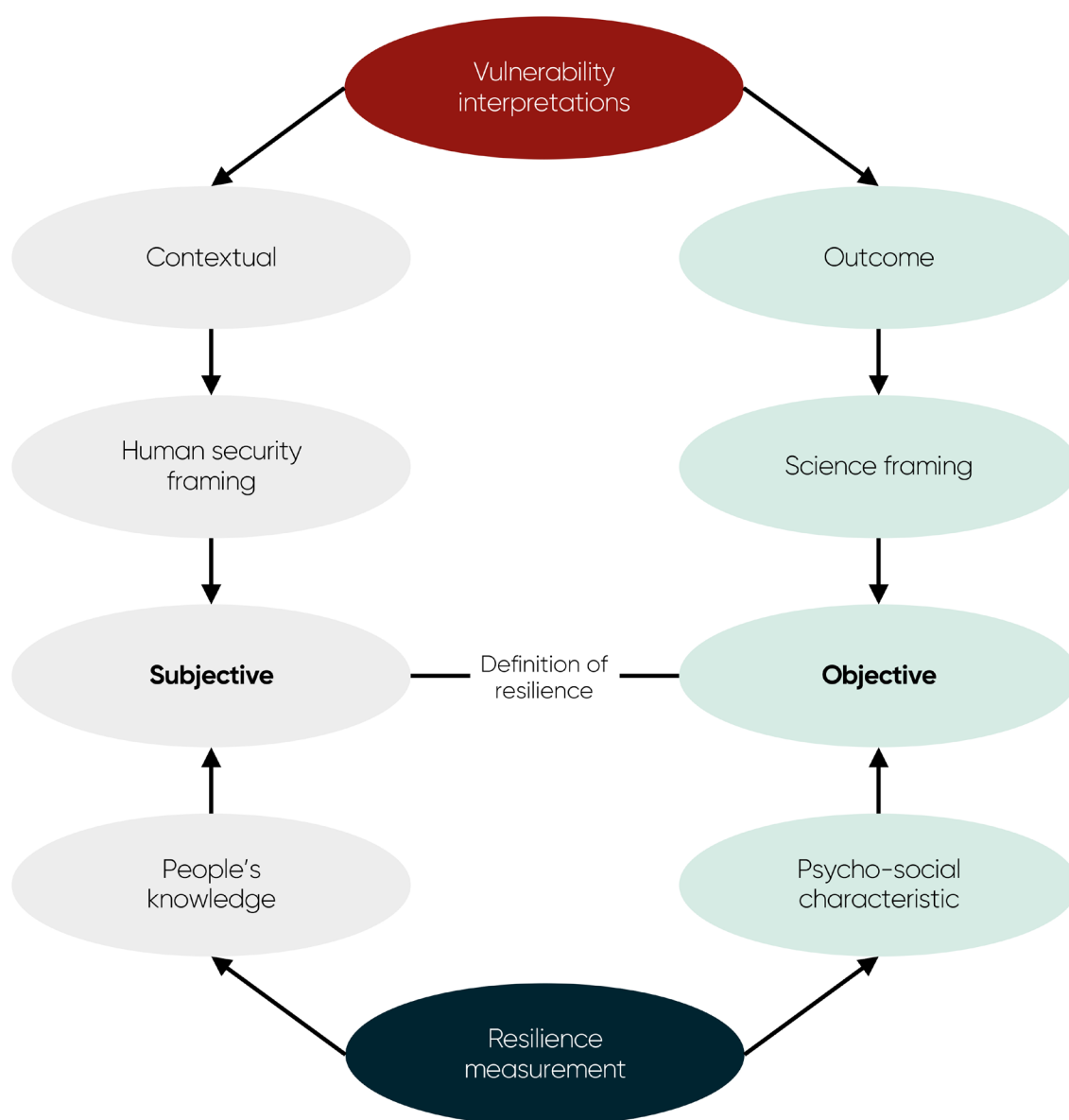
2.2 The influence of climate resilience measurement methods in defining CRD

According to Clare *et al.* (2017) and Jones (2019), there are two methods to measure climate resilience, which are the objective and subjective methods. Firstly, in regard to the objective method, it examines the individual's psychosocial characteristics such as self-efficacy, risk perception, and sense of place as resilience capacity, independently of their judgement. This more top-down approach has been the norm for both research and practice, and it dominates to a large extent our understanding of the processes by which societal responses to climate variability and change are constructed. Walsh-Dilley and Wolford (2015) add that this approach pays little attention to lay knowledge in favour of scientific expertise, depoliticises poverty, and tries to deal with vulnerability through market mechanisms, self-exploitation, and entrepreneurship.

Secondly, the subjective method observes people's understandings of their general perceived resilience to shock. This more recently advocated bottom-up approach asserts that people's knowledge such as cognitive barriers, risk perception, and personal or cultural values are the key elements that shape and contribute to their resilience (Jones and Tanner 2017; Sturgess 2016). Despite these different conceptions and applications, Patel *et al.* (2017) along with Chandler and Coaffee (2017) suggest that a focus on the individual element as the subject of resilience intervention, or the subjective approach, will be more productive and efficient than the attempt to define resilience as a distinct concept. Jones (2019) emphasises that there is no one-size-fits-all approach to measure resilience, meaning that different actors with different focuses and goals will have their own definition of the resilience concept. Therefore, this will create a different understanding of the concept of climate resilience and ultimately in defining the concept of CRD.

Furthermore, if we connect these two theories on climate resilience measurements with O'Brien's theory on two distinct interpretations of vulnerability to climate change, we will come to the conclusion that the scientific framing is used as an objective measurement and becomes the pattern in most research and development practice, whereas the human-security framing of climate change is the basis of the subjective method of resilience. However, it is less evident in formal, international scientific and policy discussions (O'Brien *et al.* 2007). The connection can be observed in Figure 2.1.

Figure 2.1 The connection between vulnerability interpretations and resilience measurement resulting in an objective or subjective definition of resilience



Source: Author's own, based on Clare *et al.* (2017), Jones (2019), and O'Brien *et al.* (2007).

As a consequence, this will also apply in describing the concept of climate-resilient development. Although there are a lot of policies and research papers stating the need for climate-vulnerable countries to find ways to become climate-resilient societies and economies, there is no single definition found of the term. For example, from the perspective of the World Bank as a donor institution, thus using the

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objective or top-down approach, in one of its reports CRD is described as the sustained effort of poverty reduction and other development objectives with the continuous and integrated process of addressing risks from the current climate and preparing for future change (Sperling *et al.* 2008). From this definition, the World Bank has published its strategy, namely climate and disaster-resilient development, by which it aims to develop long-term resilience, decrease risk, and avoid increasing future costs with the inclusion of disaster risk management in its CRD activities (De Bettencourt *et al.* 2013).

Another example of a different interpretation of CRD comes from the non-governmental organisation CARE, who defines CRD using the subjective approach, and focusing more on the beneficiaries through programme implementation such as advocacy in promoting gender-equitable responses to climate change, capacity building, and community-based adaptation (CARE n.d.).

Moving forward, in order to discuss the definition of CRD in a particular context, I will evaluate CRD in Ethiopia's agriculture sector, which will allow us to observe to what extent the CRD definition can vary.

3. CRD in the context of Ethiopia

3.1 Ethiopia: the context of the country, historic pattern, and impacts of climate change

As one of the largest and the second most populous country in Africa, Ethiopia's landscape encompasses desert, lowlands, plateaus, and canyons (OECD 2013). Although the poverty rate has been decreasing particularly in urban areas, the country is still classified as a least developed country; hence its government has an objective to achieve middle-income status by 2025 (FDRE 2011a; OECD 2013, 2014). However, climate variability and frequent extreme weather can put development achievements at risk, with an estimated temperature rise of 1.5–3°C by the 2050s (OECD 2014). Without climate change, Ethiopia's GDP is predicted to increase by more than 8 per cent annually (FDRE 2011a).

Climate change impacts in Ethiopia are already very visible with an increase in temperature, changes in precipitation patterns, and more recurrent or uncertain extreme weather events such as floods, droughts, and heatwaves where some of them are related to El Niño Southern Oscillation (ENSO) events (Bishaw *et al.* 2013; IGAD ICPAC 2007; OECD 2013). Annual droughts have caused severe food insecurity issues and erratic and high rainfalls have created seven major floods since 1980 (OECD 2014), generating an increase in government budget on food aid and emergency relief during those periods (Robinson, Strzepek and Cervigni 2013). Overall, climate change has significant impacts on the country's economy and people, such as GDP reduction by 8–10 per cent due to a decline in agricultural production, growing inequality, a decrease in income and investment which exacerbates poverty, and also political instability (Mideksa 2010; Robinson *et al.* 2013).

3.2 The Government of Ethiopia's policies and strategies on CRD

Since Ethiopia is one of the most vulnerable countries to climate change (Huq and Ayers 2007), the Government of Ethiopia (GoE) has been integrating climate change into its development planning for the last few decades (OECD 2014).

The strong and centralised technocratic leadership and vision of the late prime minister, Meles Zenawi, the initiator of the green economy agenda for both Ethiopia and Africa (Teshome 2018; Christopher and Weinthal 2019), has triggered high-level engagement and policies actioned across

ministries, making the country one of the front runners in developing its climate change-related strategies (Jones and Carabine 2013; OECD 2014). Among many policies that have been issued by the GoE are the two primary and recent policies closely related to resilience, as detailed next.

3.2.1 Growth and Transformation Plan (GTP) I and II (2011–20)

The GTP is the five-year national development plan aiming to formulate and effectively implement policies and strategies which will foster a green economy and enhance people's welfare (Jones and Carabine 2013; OECD 2014). It states that mitigation and adaptation are the key issues in building a green and climate-resilient economy; however, both documents, that is, Part I and II, only contain two pages on the environment and climate change (MoFED 2010; National Planning Commission 2016).

3.2.2 Climate Resilient Green Economy

Launched in 2011, the Climate Resilient Green Economy (CRGE) was designed to 'climate-proof' the GTP to avoid a conflict of goals for economic development, and mitigation and adaptation being deprioritised and under-funded (OECD 2014). With the final objective being to make Ethiopia a low-carbon climate-resilient middle-income country by 2025 (FDRE 2011a; OECD 2013, 2014; Teshome 2018), the CRGE supports the GTP to reach its development goals while maintaining carbon emissions at the current level and increasing Ethiopia's resilience to climate change (FDRE 2011a). The CRGE has two components; namely, the Green Economy Strategy (GES) which focuses on mitigation and the Climate Resilience Strategy (CRS) which focuses on adaptation; and four main pillars or prioritised sectors which are land use and agriculture, power, industry, and forestry (FDRE 2011a; OECD 2014).

In order to draw a contextual and sectoral definition of CRD, this paper will only evaluate agriculture which is highly sensitive to climate change and the most prioritised sector of the GoE.

3.3 Defining CRD in the Ethiopian context

3.3.1 How is CRD conceptualised and defined by the CRGE?

As mentioned above, this paper focuses only on the agriculture sector as the primary sector of the Ethiopian economy and the CRGE, contributing about 40–52 per cent of GDP and employing about 80 per cent of the population (Conway and Schipper 2011; Deressa *et al.* 2009; FDRE 2011a, 2011b; World Bank 2010). About 80 per cent of the country's population

live in rural areas and agriculture remains the major source of income for most of them (Bryan *et al.* 2009). The sector has objectives to increase crop and livestock production activities for higher food security and to enhance farmers' revenue while reducing emissions (FDRE 2011a).

The CRS-CRGE divides its strategy into three steps whereby it firstly analyses the challenges, secondly, identifies the responses needed to tackle the challenges on a macro and household level, and thirdly, actions implementation (FDRE 2011b). Although it includes some mitigation measures, the agriculture sector mainly focuses on adaptation activities, with 350 prioritised actions listed in the CRS (OECD 2014), among which are: (1) crop switching; (2) climate-smart irrigation; (3) institutional strengthening and building; (4) climate information; and (5) agricultural research and development (FDRE 2011b).

From the above mentioned description on the strategy and identified activities, the CRGE has received some criticism due to its objective approach in conceptualising CRD. The CRGE was developed at the federal level and so were most of its activities, making it difficult to reach to the local level (Christopher and Weinthal 2019). Besides its weak institutional design in transforming climate policy, the CRGE is not considered to be overtly inclusive and fails to engage stakeholders at all society levels, especially poor farmers at the local level who are already politically and socially marginalised, which creates issues of lack of representation, recognition, and fairness (Jones and Carabine 2013; OECD 2013).

The CRGE is not people-centred; it excludes softer issues such as vested interest and power relations and although regional and local governments were involved during the consultation of the CRGE development, vulnerable communities have been removed from the participatory process (Jones and Carabine 2013). This is in juxtaposition to those vulnerable communities being the demand drivers for more inclusive green growth, given the social pressures they face such as land ownership and resource scarcity (OECD 2013). The main issue is that the CRGE was developed by international experts using IPCC and science-derived methodologies, and they failed to capture substantial social, cultural, religious, and political elements in their economic and quantitative analysis (Jones and Carabine 2013; OECD 2013). In order to build resilience and foster adaptation to environmental shocks especially among rural households, it is critical to have financial, human, physical, and social capital (Paul *et al.* 2016).

Therefore, from the perspective of the GoE through the CGRE, I will outline the meaning of CRD as a development process with a top-down approach. This process aims to achieve green economic growth and poverty reduction under current and projected climate conditions by implementing mitigation and adaptation measures in a continuous and integrated way.

3.3.2 How is CRD implemented and perceived by farmers?

In order to ensure food security, Ethiopia has been implementing many agricultural projects, even before the CRGE. There are two big projects which are considered to have been successful in building people's resilience. Firstly, the Productive Safety Net Programme (PSNP), which provides cash to 7.8 million households who are unable to feed themselves. In return, those households restore the local environment which they depend on, which enables them to invest small amounts of money into their future. Secondly, the Household Asset Building Programme (HABP) gives long-term support to the same beneficiaries by diversifying and raising their revenue (Conway and Schipper 2011; Sandford and Hobson 2011; World Bank 2013). As well as these programmes, Ethiopia has also implemented climate-smart agriculture (CSA) projects aimed at decreasing the vulnerability of the agricultural system to climate change and enhancing its adaptive capacity while obtaining mitigation co-benefits (Lipper *et al.* 2018) and also agriculture modernisation programmes (Milman and Arsano 2014).

However, although those projects have been deemed successful, many issues appeared during project implementation which is partly due to the top-down approach used in conceptualising them. This can be seen, for example, in government support to farmers such as subsidies and inputs. These have been shown to have a negative impact on poor farmers because they have less ability to access that support, given that it is designed to meet the needs of wealthier farmers (Bryan *et al.* 2009). The primary issue for poor farmers is the shortage of land, and this issue is not addressed by the government, besides limited access to credit, and climate information (*ibid.*). The unresolved issues regarding land ownership, for instance, have caused conflicts and tensions between and among indigenous populations and it has expanded into tensions regarding governmental authority over access to infrastructure (Milman and Arsano 2014).

When asked about what resilience means to them, many farmers will respond that it means a set of resources required to sustain agricultural production which is related to wealth, such as land, livestock, monetary savings, a corrugated-iron-roof house, and even a motorcycle enabling them to be more mobile. In addition, some other farmers will answer that resilience is not only a matter of wealth and social network but also social status or position (Thiede 2016). These different perspectives from the farmers confirms the subjectivity of resilience.

Despite the main goal of the implemented CRD projects to reduce poverty, they do not address its root cause. Therefore, from the farmers' perspective,

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I would define CRD as the development processes which provide them with access to financial and technical resources, a higher social status, and sources of livelihood outside of the agriculture sector, which allows them to reduce their vulnerability and recover from shocks caused by climate change.

3.3.3 What are the challenges and policy implications?

As mentioned previously, CRD project implementation in Ethiopia faces problems such as lack of human resources and technical capacity, limited financial resources, divided implementing agencies, as well as outdated and overlapping policies (OECD 2014; Teshome 2018). Regarding the challenge closely linked to the subjectivity of the resilience concept, the issue is how different understandings influence its operationalisation, whereby the ideas of wellbeing or a good life are often conflated with merely fulfilling relatively basic needs (Thiede 2016; Walsh-Dilley and Wolford 2015). In other words, it creates temporal tensions between the beneficiaries' needs whereby poor farmers tend to be oriented towards coping with short-term crises, whereas wealthier farmers tend to plan and take action over the long term (*ibid.*).

In order to tackle those challenges, the GoE needs to make efforts, for instance, to promote irrigation, soil conservation, and new crop varieties in future policies to avoid farmers facing crop failure in times of drought (Deressa *et al.* 2009). The GoE also needs to consider farmers' needs and softer issues in their strategies (Bryan *et al.* 2009) as well as scaling up investment and engaging the private sector (Christopher and Weinthal 2019). Finally, in relation to the subjective perspective of resilience, the GoE will need to emphasise an individualistic view of welfare instead of questioning the structural cause of vulnerability, by taking into account in its policies the spatial and temporal scales at which resilience is promoted or restrained (Thiede 2016; Walsh-Dilley and Wolford 2015).

As described above, from the case study of Ethiopia, we can observe that CRD can be perceived differently by two different actors; the GoE on one side and the farmers as the beneficiaries of the CRD on the other. The GoE uses the objective approach and sets aside existing power relations in society in defining CRD in the CRGE, whereas for the farmers, CRD means a set of resources such as finance and higher social status, which would allow them to come out of poverty and become less vulnerable. These different understandings reaffirm how subjective the meaning of CRD is and what it can accomplish is more important than the definition itself. Therefore, to ensure the effectiveness of its implementation, it is important to focus on how CRD is perceived by the subjects of the intervention (Chandler and Coaffee 2017).

4. Conclusion

This paper has discussed the meaning of CRD using Ethiopia and its agriculture sector as a case study. For the past ten years, resilience has become the new buzzword in the development world, and this concept has also become a key element in the policy and strategy of development and in the sectors of vulnerability reduction.

In order to describe what CRD means in the Ethiopian context, I started with the key definition and literature review, in which I unpacked CRD by evaluating the meaning of each element of the concept and in particular 'resilience' as the primary element. I then discussed linkages between resilience and vulnerability and depicted the two different ways of interpreting vulnerability and the two distinct methods of measuring resilience. This leads on to an objective or subjective definition of resilience which can also be applied to an explanation of CRD.

I then assessed how CRD is defined by the GoE in their CRD strategy; namely, the CRGE through the agriculture sector. The CRGE, aimed at achieving green economic growth and making Ethiopia a middle-income country by 2025 by reducing poverty and ensuring food security, contributes to the GoE's strategy in building people's resilience by using a top-down approach. However, it does not consider softer issues such as vested interests and power relations, resulting in an 'objective' definition of CRD. On the other hand, when CRD is described from the farmers' perspective, it is defined in a 'subjective' way, whereby it is perceived as a set of resources such as wealth and higher social status enabling them to step out of poverty and become less vulnerable. This shows that the definition of CRD is subjective depending on the perspective we use: whether it is the government or top-down perspective, or the beneficiaries' or bottom-up perspective.

In conclusion, CRD may be defined in two ways, both objectively and subjectively. However, it can be argued that it is more essential to identify how resilience is understood from the point of view of a beneficiary in order to ensure that CRD is implemented in the most productive and effective way.

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How Do Dominant Biofuel Framings Close Down Pathways to Sustainability in Sierra Leone?

Olivia Compton

1. Introduction

The production of biofuels in sub-Saharan Africa has reached unprecedented levels and continues to increase, with predicted production rates of 4.7 million metric tonnes (MT) by 2035 (as compared to 0.2 million MT in 2015) (Statista 2019). Whilst previously hailed as a panacea for mitigating detrimental environmental impact, biofuels have now received substantial criticism, with a new narrative emerging advocating for 'sustainable' biofuel methods to be implemented. In Sierra Leone, the leasing of land for biofuel developments is deemed by policymakers to be a leading development pathway, relying on foreign investment to lift the country out of poverty. However, by relying on this development pathway, decision makers are disregarding alternative options for sustainability, failing to acknowledge the complex dynamics of the country and the varied interpretations of sustainability from multiple stakeholders.

This paper will draw on the STEPS Centre's Pathways approach (Leach, Scoones and Stirling 2007) to explore the dominant and alternative framings of sustainability within Sierra Leone's biofuel debate. The 'three lenses on policy processes' framework will be applied to explore how various framings of sustainability have closed down multiple pathways (Wolmer *et al.* 2006; Keeley and Scoones 2003). This framework will be applied to help consider the following:

1. How sustainability has been framed by different actors;
2. How political interests and agendas have shaped the debate;
3. How knowledge and interests have shaped discourse and the closing down of multiple pathways.

My analysis conveys that powerful stakeholders frequently frame sustainability issues in ways that suit self-interests and in turn, influence the dominant discourse. This development pathway is based on a linear notion of progress, which does not account for multiple complexities and which closes down alternative pathways.

2. Biofuels in Sierra Leone

Sierra Leone's development goal to become an 'inclusive, green, middle-income country' by 2035 (Government of Sierra Leone 2012: 1) was significantly compromised following the 2014–16 Ebola epidemic. Increasing foreign investment for biofuel development has become a key component of the country's development pathway. Their 2019 Medium-Term National Development Plan (2019–23), has emphasised the need to attract private investment (Government of Sierra Leone 2019). Biofuel initiatives have been running since the 1980s (Amigun, Musango and Stafford 2011), yet this new period is highly significant as dominant sustainability framings are designed to be the bedrock for the country's recovery trajectory.

Sierra Leone's growth-centred development model raises an interesting question as to how sustainability is interpreted within domestic policy. It does not fit the Bruntland Report's definition of 'meet[ing] the needs of the present without compromising the ability of future generations' (UN 1987: 43), but instead is more suited to an alternative sustainability definition, having the 'ability of a system to bounce back from shocks and stresses and adopt stable states' (Leach, Scoones and Stirling 2010: 33). In short, the dominant sustainability policy in Sierra Leone neglects the additional components of the sustainability definition, such as 'qualities of wellbeing, social equity and environmental integrity' (*ibid.*: 17).

Although Sierra Leone's feedstocks of sugarcane and palm oil produce biofuels such as ethanol and biodiesel which are believed to have 'green' credentials, by decreasing deforestation and environmental degradation (Wolde-Georgis and Glantz 2010), the social and political implications of biofuels have been disregarded. The end result is that the current government policy undermines the livelihood of farmers due to frequent land dispossession, threats to food security, increased food prices, and the resulting exacerbation of poverty and starvation (Maconachie 2019). This illustrates the subjective, value-laden, and deeply political nature of the term sustainability, which is often framed to fit certain agendas. It is the actors, interests, and knowledge that shape the way that sustainability is interpreted and applied, which will be further developed in the methodology section.

3. Methodology

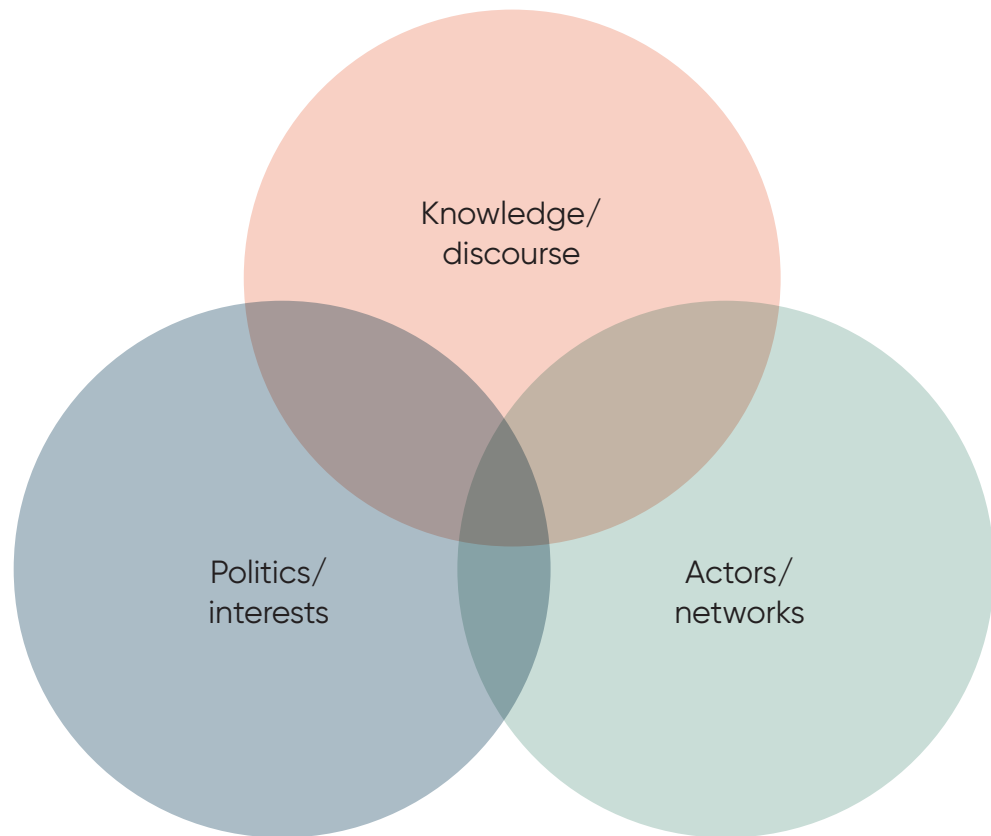
In this paper, I apply the STEPS Centre's Pathways approach (Leach *et al.* 2007) and the 'three lenses on policy processes' conceptual framework (Wolmer *et al.* 2006; Keeley and Scoones 2003) to analyse how notions of sustainability have been framed, how such narratives have come to dominate, and the power reflected in political interests and agendas. The notion of pathway conveys 'the way a given system changes over time' (Leach *et al.* 2007: 12). The Pathways approach recognises the complex and diverse nature of social, ecological, and technical systems with diverse knowledges, values, and plural pathways to achieving intended goals. This approach perceives that often systems may have a linear view of 'sustainable' development, with a dominant pathway that neglects or suppresses alternative narratives. This paper explores the contested framings of biofuel used to promote sustainability, arguing that biofuel has become the dominant pathway and has, in turn, closed down alternative and multiple pathways towards achieving sustainability.

The 'three lenses on policy processes' diagram (see Figure 3.1) illustrates the dynamics that are involved in policymaking, categorised into three main groups: roles and agency amongst actors and networks; state and civil society interactions and group interests; the impact of shifting discourses and use of knowledge (Wolmer *et al.* 2006: 7). In this paper, I will apply the conceptual framework to assess the actors, interests, and discourse involved in the political process of biofuel expansion in Sierra Leone, and how these components overlap and intersect within decision-making processes. This framework helps to map out:

1. Who are the authors of various narratives?
2. Whose interests inform the policies?
3. What knowledge and narratives create and reinforce the dominant discourse?

The framework will help to identify any alternative narratives and where they sit within the biofuel debate. The framework also helps to discern how dominant framings project a dominant discourse and shut down alternative pathways.

Figure 3.1 Three lenses on policy processes



Source: Wolmer *et al.* (2006).

4. Sustainability narratives in Sierra Leone

In this section, I will draw on the 'three lenses on policy processes' framework (Wolmer *et al.* 2006; Keeley and Scoones 2003) to explore the multiple sustainability narratives from different stakeholders and how they have influenced narratives in Sierra Leone. This includes the EU and G20; the World Bank; the Sierra Leone government; private companies; local elites and local non-elites. My discussion section will analyse how certain framings have stimulated the closing down of multiple pathways to sustainability.

4.1 The EU and G20

The EU Renewable Energy Directive has introduced a new biofuel criteria for achieving sustainability (European Commission 2019), and the G20 has published a toolkit for renewable energy deployment, calling for sustainable biofuel production pathways to be prioritised (IRENA 2016). These recognise the negative and unsustainable implications biofuel production can have on energy, land, and livelihoods. However, despite the new sustainable criteria instigated by global leaders, there has been increased investment from the European Commission, the World Bank, and other international players, often failing to achieve the same standards of sustainability and satisfying a 'minimum compliance approach' (German and Schoneveld 2012: 33). The EU's framing of sustainability therefore reveals a contradiction, rendering nugatory the standards advocated within European policy, and signifying that Western political interests within Sierra Leone may have a neo-colonial underpinning. There are no existing sustainability criteria which can justify the current scale of land acquisition across the African continent (Bracco 2015: 137). The increasing involvement of European actors extracting biofuels in Sierra Leone reinforces the dominant market-led development pathway.

4.2 The World Bank

Two months ago, the World Bank approved a US\$40m grant in Sierra Leone, to 'promote sustainable and inclusive growth' through increased productivity in agriculture and other activities, and authorising the scaling up of investment (World Bank 2019). The World Bank's growth-led narrative suggests that economic development will contribute to the eradicating

of poverty and improve national prosperity, dependent upon 'a solid enabling environment for the exploitation of its abundant natural resources' (*ibid.*). The World Bank's framing of sustainability propels the narrative of economic growth as the dominant development pathway, without the necessary consideration of local livelihoods and alternative pathways.

4.3 The Sierra Leone government

This sustainability rhetoric is adopted by the Sierra Leone government who hope to re-stabilise the economy through export-oriented business (Maconachie 2019). The primary assumption is that pro-biofuel policies will encourage economic growth, creating agricultural jobs and salaries (Palliere and Cochet 2018). Sustainability is framed as economic growth that will gradually 'trickle down' to populations, despite ongoing evictions of smallholder farmers and job loss (Maconachie 2019). In this case the dominant development model is promoting a singular notion of progress which is, in turn, closing down multiple pathways and limiting the prospects for local perspectives to be heard.

4.4 Foreign biofuel companies

Multinational companies engaging in biofuel production often adopt corporate social responsibility (CSR) strategies to reduce the negative impacts on local communities (Maconachie 2019). CSR has become a new phenomenon to tackle sustainability issues, addressing the economic, social, and environmental effects of a company's engagements. Although there may be good intentions behind many CSR projects, CSR can be framed to construct a particular narrative that fits with the interests of the company. This helps the company project a positive image of their practices, selectively choosing which information will be shared, and influencing the public discourse.

4.5 Addax Bioenergy Ltd

CSR activities have been adopted by the large bioenergy project run by Addax Bioenergy Ltd who have claimed to enact positive social practices, working with the local farming communities to mitigate disruptions caused by the project (Millar 2018). The project has been recognised for its claims to economic, environmental, and social responsibility (*ibid.*), setting up a Farmer Development Programme in partnership with the Food and Agriculture Organization (FAO), assisting farmers in efficient farming practices, and working with local populations affected by the project to

guarantee food security (Bottazzi *et al.* 2018). Studies have shown that many villagers who have taken part in the programme have had an increase in financial income and arguably improved food and water security, although there has not been a linear impact (*ibid.*: 128). The underlying incentives for the company to engage in social programmes that promote sustainability within the region has been the international reputation the company has gained and the conditional public funding received for committing to sustainable practices (*ibid.*).

Although the ambitions of this bioenergy project have been to 'become a benchmark for sustainable investment in agriculture' engaging with multiple stakeholders (*ibid.*: 130), studies have shown that there have been degrees of coercion from the company whilst pushing their sustainability agenda. Millar (2018) traced the social dynamics of the project and their findings evidence that despite organised activities with locals to remediate the disruptive or negative impacts of their project, the company exercised control over rural farming populations through direct and indirect force. The direct force occurred through intimidation of local farmers by the use of security guards protecting the site, and the indirect force was contained in the company's position as a legal entity with protection from the government (Millar 2018: 760). These findings suggest that although Addax Bioenergy Ltd have publicly projected their values of sustainability, the methods by which they achieve such recognition are complex and contested, often exacerbating inequality on a local level.

Furthermore, a lack of local knowledge within rural areas can also jeopardise the sustainability of local livelihoods. Farmers mainly operate within an informal system without legal titles (FAO 2018), and therefore land acquisition can lead to the displacement of farmers. Foreign companies intervening in local contexts, irrespective of social and cultural dynamics can cause conflict (Millar 2018: 766). The government often ignore local connections with land and advertise land as 'under-utilised', 'free', or 'unused' (Palliere and Cochet 2018: 424), despite the fact that such land is often being used by smallholder farmers. The government's interests and prioritisation of market-led development overlooks local contexts and further exacerbates poverty.

4.6 Local non-elite perspectives

Studies show that sustainability is interpreted differently by smallholder farmers who frame sustainability as food security, land rights, and employment. Yet the government is preoccupied with tactics to attract bioenergy investors, placing agribusiness 'at the centre of the country's development trajectory' (Maconachie 2019: 876), often ignoring the

voices of local populations. Moreover, there have been clashes with multinationals and local populations in 'negotiating the best deals', with women especially vulnerable in not having their voices heard (Palliere and Cochet 2018: 423). This is of particular concern given that women's claims to land are already inhibited by existing gender roles and the demands of childbearing; therefore, land acquisition, even if seemingly gender-neutral, reinforces gender disempowerment (Millar 2015: 455). The single, dominant pathway promoted by domestic policy neglects marginalised groups and reinforces the unequal power divisions amongst stakeholders.

4.7 Local elite perspectives

Acknowledgement of the intersectionality amongst stakeholder groups is imperative to further understand existing power divides. Sierra Leone is a very unequal country and an individual's agency can differ greatly between groups. There are large disparities in wealth between the elites who have access to education, employment, and travel and the non-elites in rural areas (Millar 2014). The power held amongst authorities such as ministers, district officers, and paramount chiefs has enabled these actors to work with foreign companies to secure deals that benefit their own interests, failing to adequately represent the local non-elites and their needs (Millar 2018). Chiefs received '20 per cent of every land-lease dollar paid by the project, or approximately US\$71,000 per year collectively' (Millar 2018: 763), providing them with an incentive to support the biofuel projects. Furthermore, studies have shown that resources have been distributed amongst elites who are most likely to support and serve the companies, influencing the actions and opinions of locals and reinforcing the pro-biofuel discourse (*ibid.*).

5. Discussion

The above section has illustrated the multiple actors within the biofuel debate, and the various sustainability perspectives. It also has conveyed the unequal relationships between authorities, private investors, and local farming populations. Within the top-down system, where policy is influenced by powerful actors, vulnerable and marginalised groups have not been taken into account. This linear pathway for sustainability fails to acknowledge the complexity and dynamism within the social order, and is inherently exclusive, effectively serving only the interests of the powerful.

Analysing the various framings of sustainability by different stakeholders has identified the political interests and underlying agendas. While political bodies such as the World Bank, the EU Renewable Energy Directive, and the Sierra Leone government are prioritising foreign investment and economic growth as the country's pathway to sustainability, local non-elite populations interpret sustainability as adequate food security, land rights, and employment, yet at the same time they have no power to frame their opinions within domestic policy. This highlights the importance of opening up pathways to sustainability, addressing diverse values, perspectives, and knowledge.

My findings convey that it is the powerful stakeholders that create and reinforce the dominant discourse, to suit particular political interests. Knowledge from authorities is prioritised and marginalised groups are further side-lined. Knowledge is therefore 'produced discursively, shaping and reflecting particular institutional and political practices' (Keeley and Scoones 2003: 1), further exacerbating inequality. For a more inclusive, sustainable model, alternative pathways need to be addressed, acknowledging marginalised voices, local forms of knowledge, and in turn, opening up multiple pathways to sustainability.

It is evident from the analysis above that the dominant discourse prioritises foreign investors over non-elite rural populations. It is, however, unfeasible to accept the 'one-size-fits-all' notion that Western innovators assume when adapting biofuel processes in new contexts. There is a degree of 'incomplete knowledge' of the complex dynamics of the new setting, the risks, uncertainty, and ambiguities that may occur in a new environment, climate and cultural setting (Leach *et al.* 2010). This single development pathway inhibits other options and risks creating a technological 'lock-in', whereby there is a dependency on one particular technological process (Unruh and Turray 2006). Reliance on one particular development trajectory may well cause problems in the face of future shocks or stresses that the country may experience (Leach *et al.* 2010: 13).

6. Conclusion

This paper has examined the various framings of sustainability by different stakeholders, applying the 'three lenses on policy processes' framework to explore the actors and political interests that influence the dominant discourse. The Pathways approach has guided my analysis in examining the dominant and alternative pathways within Sierra Leone's biofuel debate, concluding that the dominant, government-led pathway to sustainability closes down alternative pathways, excluding alternative narratives and failing to address the needs of the local farming population. This dominant pathway does not consider the complex dynamics within Sierra Leone, and as a result, local livelihoods are not protected. Diverse knowledge and perspectives need to be taken into account in order to create a more inclusive and sustainable development trajectory.

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What Viable Value Chain Upgrading Options are Open to Small-Scale Grain Farmers in Zimbabwe?

Amy Coupland

1. Introduction

Like many sub-Saharan African countries, Zimbabwe has a large agricultural production sector but experiences domestic food shortages. In 2004, for example, 1,520,000 metric tonnes (MT) of maize was produced and yet 250,000 MT of food aid was received (Trading Economics n.d.).

The poverty headcount ratio at US\$2 a day (PPP) is 45.5 per cent of the population, with a Gini index score of 43.15 (Trading Economics n.d.), yet Zimbabwe was a major trading partner to Europe before the 2000–09 period of economic depression and land reforms (Borras Jr *et al.* 2011). Persistent bouts of economic and political instability exacerbate food insecurity. Trading economics data for maize production in Zimbabwe shows that approximately 350,000 MT of food aid was required in 2008 during the contested elections, over double the average required during the previous three years (Trading Economics n.d.). Reliance on food aid brings further uncertainty as international food aid is often linked to political will and donor countries' confidence in domestic countries' ability to manage resources equitably.

Yield trends are insufficient to double global crop production by 2050 (Ray *et al.* 2013) and climate change will increase vulnerability and exacerbate low crop yields globally (Twomlow *et al.* 2008). Small-scale farmers will need to diversify if they are to become resilient to shocks and stresses (Ellis 2000). Given that maize accounts for 90 per cent of Zimbabwe's total cereal output (FAO 2019), if more value can be derived from maize production, this could have a significant impact on poverty reduction.

This paper seeks to apply the literature on value chain upgrading to the Zimbabwean context in the main staple crop, maize. The research found that most process upgrades and indeed, some product upgrades, are not likely to lead to increased income or options as maize farmers are *captive suppliers* in a *quasi-hierarchical value chain governance structure*, with the government-buying entity, the Grain Marketing Board (GMB) being the monopoly buyer. Some product upgrades might lead to farmers creating *new products for new markets*, such as livestock feed production. However, it should not be assumed that increased income will lead to more robust and resilient livelihoods, especially in the context of economic uncertainty, cash illiquidity, and rapid cash devaluation in Zimbabwe. As such, this paper argues that *product upgrading might be a starting point but not a sufficient 'end game' for Zimbabwean small-scale maize farmers*, and looks at the Schmitz cluster model (1999) as a method for how improvements might be implemented.

2. Methodology

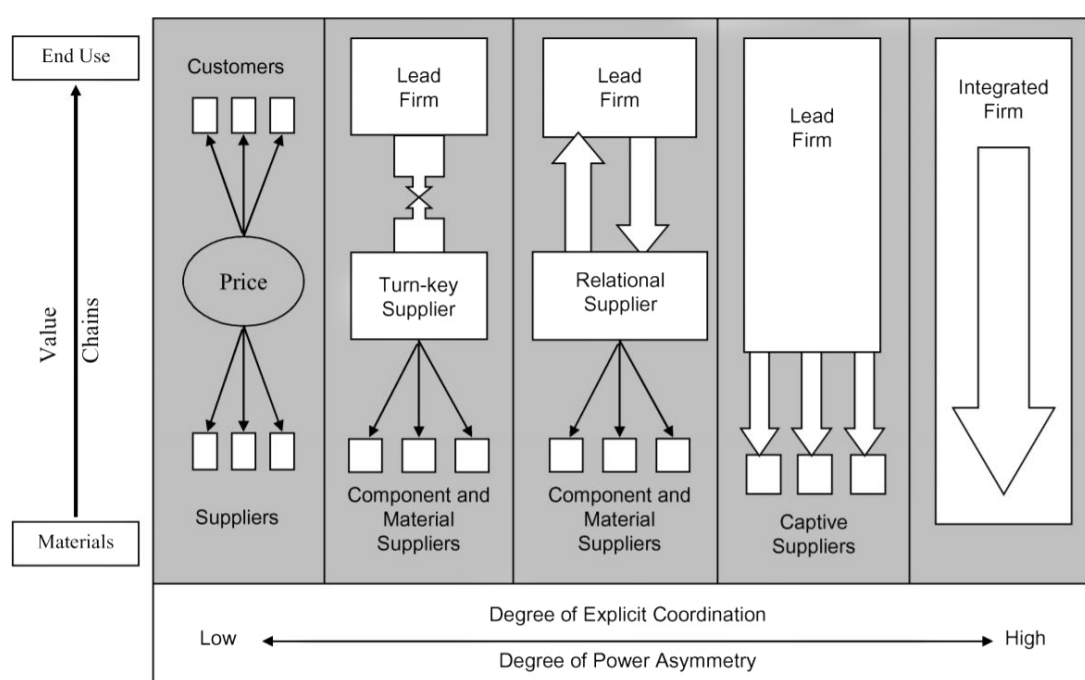
This paper relied on secondary data research but draws on a foundation of the author's own observation, having worked on livelihood improvement programmes in Zimbabwe. The key framework drawn on and operationalised is Gereffi, Humphrey, and Sturgeon's (2005) thinking on value chain governance and analytical typologies and Schmitz's three types of value chain upgrading and thinking on clusters (Humphrey and Schmitz 2002).

3. Literature review

Value chain governance describes the conditions and terms of trade between suppliers and buyers or lead firms, including how and at what price a product is produced and remunerated (Gereffi 1999; Humphrey and Schmitz 2002). An analysis of the governance of value chains can reveal the power relations and what constraints and options are open to those with less agency (Kaplinsky 2000). An analysis of the power dynamics and motivations of different interest groups is necessary to design meaningful change programmes.

Humphrey and Schmitz (2002) identified the four categories of value chain governance as Hierarchy, Quasi-hierarchy, Network, and Market, which Gereffi *et al.* (2005) adapted to the five categories of Hierarchy, Captive (or quasi-hierarchical), Relational, Modular, and Market, as visualised in Figure 3.1. The typologies, going from left to right, describe the degree of integration and therefore control that lead firms have over the value chain. The more integrated the value chain is, the higher the degree of power asymmetry. A good example is a multinational corporation such as Coca Cola, who may have local sourcing and manufacturing operations run by local entities, but those local entities are producing to a recipe dictated by Coca Cola and bottling the product in Coca Cola-branded bottles with Coca Cola labels, distributed by branded trucks. Local entity firms are not free to do their own marketing and producers of the ingredients are producing to Coca Cola specifications.

Figure 3.1 Value chain governance typologies



Source: Gereffi *et al.* (2005). Reprinted by permission of the publisher (Taylor & Francis Ltd)

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According to Gereffi's definition, the Zimbabwean maize value chain mostly fits the 'captive value chain' model because all maize farmers are obliged to sell their total output to the GMB, so they are not free to brand and package their raw maize for other markets where they might find niche or high-value markets. For example, they might be better off selling to local informal markets during times of shortage or export to Zambia or Mozambique when there are shortages. However, it is not a straightforward case as it is difficult to say that farmers are disadvantaged because the GMB usually offers one of the highest world market prices. However, power relations are what is being examined and this favourable price has been set at the behest of an authoritarian government and there are fears that the new dispensation, and finance minister, may bring new ideas. The GMB offers a favourable price to millers wishing to buy maize for secondary processing which presents an opportunity, but again, this is within the control of the government, whereas farmers and small enterprises have extremely limited agency over their sourcing and price of inputs.

Gereffi (2018) discusses the following three factors to determine value chain governance:

- **Complexity of transactions:** how complex, or easy to penetrate or replicate, are the transactions? Could the supplier have access to this upstream information?
- **Codifiability of information:** how transparent, or embedded is the information?
- **Capability of suppliers:** does the supplier have access to key components (skills, knowledge)?

The following indicators and framework have been operationalised as a value chain governance diagnostics tool for the purposes of classifying the Zimbabwean maize value chain.

What Viable Value Chain Upgrading Options are Open to Small-Scale Grain Farmers in Zimbabwe?

Figure 3.2 Value chain governance diagnostic tool

Indicator	Question	Response*	Analysis
Asymmetry of information	Do you know how much your product sells at the end market?	Yes, because the end market is the GMB and the price is fixed and advertised by the government.	Although the price is published and publicly available, this does not give farmers any more power or leverage, as they exist in a captive value chain .
Dependency	How much of your output goes to the main buyer? How many buyers do you have?	All maize farmers are obliged to sell their total output to GMB (state-owned off-taker).	Although farmers are obliged to sell to GMB, the price is usually set extremely high to manage political optics. This is positive, can undermine food security and there is still power asymmetry .
Power asymmetry	Does your buyer allow you to use your own brand on your products?	No, it is not possible to sell raw unprocessed maize to any buyer other than GMB.	Although it is not possible to sell branded unprocessed maize, it is possible to apply for a millers' licence to sell milled maize or other maize products.

* Responses relating to the Zimbabwean value chain, based on secondary sources and observation

Source: Author's own.

The government's Command Agriculture Programme is a contract farming initiative whereby farmers are given inputs on credit, which are deducted from their maize delivery to the GMB. Maize produced under the government's contract farming initiative presents some characteristics of a fully hierarchical value chain but does not fit the classical definition of vertical integration as the GMB doesn't do secondary processing such as milling and feed formulation but sells to secondary processors. Depending on where we choose to begin and end the maize value chain, it can be seen as quasi-hierarchical or hierarchical.

Understanding the value chain governance as well as the capacity of the supplier is key to evaluating the options open to a particular supplier in order to increase the power and agency the supplier has. Sturgeon identifies three types of suppliers, or ways of looking at their capabilities (Gereffi *et al.* 2005):

- **Commodity supplier:** who produces standardised, generic inputs that are easy to copy;
- **Captive supplier:** who produces non-standard inputs or parts, typically using specialised machinery;
- **Turn-key supplier:** who produces customised products, using flexible machinery and perhaps pools the capacity of other suppliers as part of modular production networks.

What Viable Value Chain Upgrading Options are Open to Small-Scale Grain Farmers in Zimbabwe?

According to Sturgeon's definition (Gereffi *et al.* 2005), *maize farmers are commodity suppliers to the GMB of Zimbabwe*, the government subsidiary to whom all grain farmers are obliged to sell to. The GMB has the market monopoly for raw material and adds value itself by producing 'maize meal' (milled maize which is used to make 'sadza', the household staple food) or issues millers' licences to formal and informal millers.

Schmitz (1999) is a key proponent of the three theoretical approaches to the foundation of value chains:

- **Transaction cost theory:** non-monetary costs involved with production;
- **Network:** trust, reputation, mutual dependence;
- **Firm capabilities:** available knowledge and skills.

Schmitz also adds the dimension of local governance, the relationship between local and global policy, and the role of clusters as a mechanism to improve governance to the Gereffi, Humphrey, and Sturgeon literature which will be pertinent for this paper.

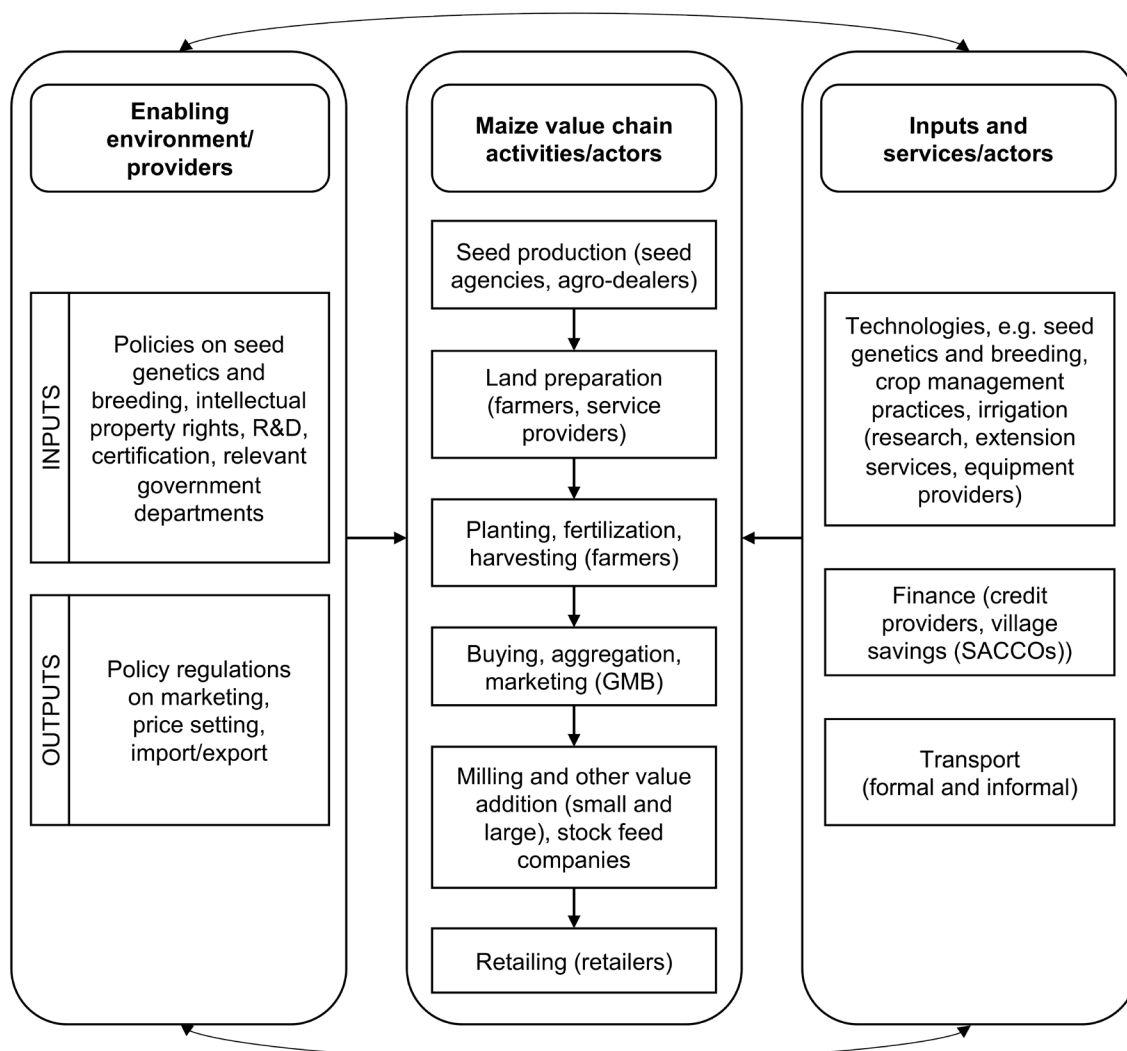
4. Case study

Figure 4.1 represents the Zimbabwean maize value chain. A key issue on the inputs side is the lack of research and availability of improved certified seed (Mukeredzi 2017). As discussed later, there have been improved seed initiatives with variable results. Cost and accessibility of seed for farmers is likely to be a barrier due to reduced purchasing power owing to worsening economic conditions since 2015. Land preparation, management, and harvesting is labour-intensive and done by hand among small-scalers. In 2018, the GMB was offering US\$390 per tonne for maize (FAO 2017) compared with the highest world price of US\$210 (FAO 2017). However, there are questions around the payment times and terms of the GMB. The high prices set by the GMB are likely to create an incentive for farmers to give much of the land they have access to over to maize production and to sell as much as they can afford to sell to the GMB.

The paradigm of long-term ecological losses for the short-term gains of intensive monocropping is well documented (Tittonell and Giller 2013). More diverse crops would likely be better for nutrition, resilient income sources, and ecological sustainability but the strong market pull for maize is likely to overpower alternatives. Key issues relating to the actors in the inputs and services space are the high barriers to accessing performance-enhancing technologies such as irrigation for small-scalers. For example, the high cost of technologies and lack of collateral, or an alternative narrative might cite a poorly designed financial sector with products that do not serve a huge section of their market.

What Viable Value Chain Upgrading Options are Open to Small-Scale Grain Farmers in Zimbabwe?

Figure 4.1 Value chain governance diagnostic tool



Source: Author's own.

4.1 Problem and root cause analysis of the maize value chain

Table 4.1 Problem analysis of the maize value chain

	Value chain governance	Market failures	Political/economic	Climate
Maize market is a state-owned monopoly	X			
High price for raw maize undermines food security and nutrition	X			
Lack of purchasing power for improved inputs or new technologies (e.g. improved seed, irrigation systems)			X	
Lack of knowledge and skills to improve yields, apply new technologies or diversify	X		X	
Lack of access to balanced extension services (AGRITEX, the government-run service prevails)	X			
Climate uncertainty undermines yields (El Niño in 2015, drought of 2018 and 2019)				X
Political instability undermines yields (contested elections in 2008 and depressed economy, army takeover in November 2017)			X	
High transaction costs for farmers (transport, distribution, mobile money fees), particularly the most rural and poorest		X		
Market flooding during main harvest (and inability to safely withhold and store grain)		X		

Source: Author's own.

4.2 What are the possible strategies for redressing power asymmetry?

Table 4.1 shows that many of the problems fall into the root cause categories of political and economic challenges and asymmetrical power dynamics in the value chain (value chain governance). Farmers and actors who might be mobilised to implement a change strategy (such as small- and medium-sized enterprises, non-governmental organisations (NGOs), producer organisations) do not have the authority and agency

What Viable Value Chain Upgrading Options are Open to Small-Scale Grain Farmers in Zimbabwe?

to influence these key problem areas and therefore any strategy needs to take this macroeconomic context into account. Empirical evidence shows that food riots are a key cause of political unrest. These *commodity suppliers* exist in an autocratic governmental system that is geared towards reaching grain targets and being able to claim food security. A lack of last-mile distribution channels for seed, inputs, and final commodity means that the most rural and therefore poorest farmers are required to pay transport providers to deliver their grain and are worse off.

According to network theory, low trust and lack of reputation results in non-existent, dysfunctional networks with unequal power relations (e.g. small-scale farmers have low bargaining power to negotiate favourable trade agreements, e.g. pre-financing).

Humphrey and Schmitz (2002) identify three types of value chain upgrading:

- **Process:** doing certain tasks better (e.g. investment in machinery, workforce training, changing layout, new management techniques);
- **Product:** making a product that is of better quality, more sophisticated, or simply carries a better price (e.g. new models, new lines, new materials);
- **Functional:** acquiring skills in a chain activity that the firm did not possess before (e.g. a producer starting to design their own products, launching own brands, coordinating their own supply chain, doing their own marketing activity or entering new markets).

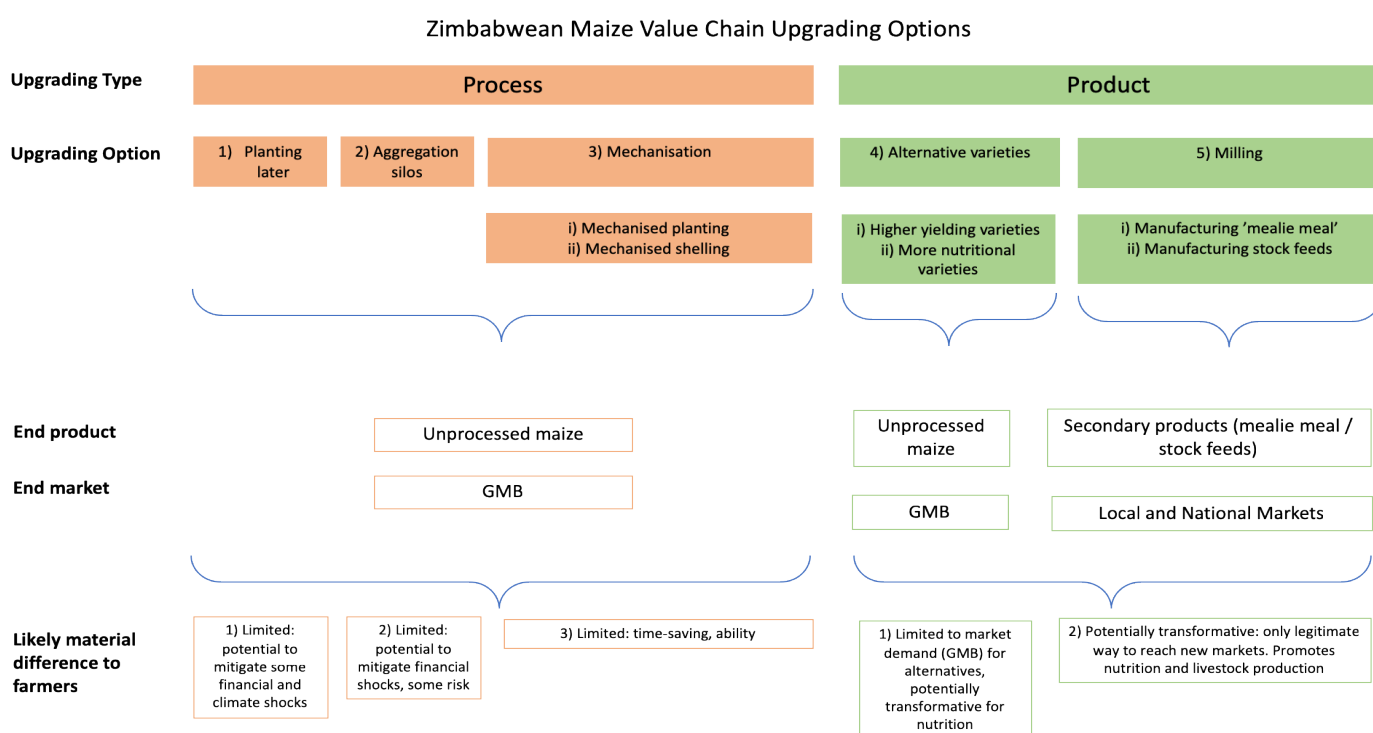
Given that process upgrading and functional upgrading would result in the end product being largely the same product and thus ending up in the same monopoly GMB market, product upgrading is the only upgrading option that is likely to address the root causes.

Value chain upgrading would afford farmers more agency and be less dependent on GMB and national prices. Value chain governance is important in the context of understanding which upgrading options are open to particular actors (Humphrey and Schmitz 2002). Schmitz and Knorringa note that functional upgrading is less conducive to hierarchical and captive value chains (Schmitz and Knorringa 2000; Bair and Gereffi 2001).

5. Zimbabwean value chain upgrading options

Figure 5.1 presents some of the process and product upgrading options which have been selected based on empirical evidence of their viability. All options, except option 5, would reach the GMB market and would therefore be subject to the value chain governance constraints identified above.

Figure 5.1 Zimbabwean maize value chain upgrading options



Source: Author's own.

5.1 Analysis of upgrading options

1) Planting later

Rains are getting later due to climate change and there is a need to plant later but cultural customs play a role in dictating planting times. Additionally, later planting, and therefore a late crop harvest, could give farmers a competitive advantage as they may be able to ride out the market flooding that happens during peak marketing times. However, access to timely and technically reliable information on planting times is an issue. This is a

What Viable Value Chain Upgrading Options are Open to Small-Scale Grain Farmers in Zimbabwe?

relatively high-risk option for potentially low gains. If the GMB does not put the price up towards the end of the season and farmers have waited too long after the first rains, the gain could be small or worse still, negative.

2) Aggregation silos

Retaining grain for when stock is low and demand is high could enable farmers to ride out the market flooding described above. However, the same challenges apply as with option one and there are additional technical considerations around storage techniques, fumigations, and managing mildew with grain silos as well as the financial barrier that is likely to be prohibitive to many.

3) Mechanisation

The planting and shelling of maize is done by hand, which is labour-intensive (and often done by women). Models around individuals or groups of farmers commissioning tractors for land preparation and shelling are viable options, but the gains are only worth it during a reliable season. The additional social benefits of labour-saving technologies, particularly for women who tend to do much of the manual labour, cannot be ignored.

4) Alternative varieties

According to the International Maize and Wheat Improvement Centre (CIMMYT), 53 million hectares of improved variety maize was under production in 2008 which represents almost half of the total maize under production (56 per cent, or 6.7 million hectares, was traditional variety recycled seed). It is important to learn from previous effort and if almost half of the maize under production in 2008 was improved varieties, this should be taken into consideration. Notably, there are some biofortified, 'orange maize' varieties which have improved nutritional value (FAO 2017).

5) Milling for maize meal and/or livestock feed production

The GMB price for millers is often very favourable which makes secondary processing an interesting option. The cost and access to milling machines might be prohibitive and creative ownership or rental use models may need to be explored. Prices for maize meal seem to be broadly declining and are quite geographically sensitive, likely due to the availability of maize in each province (see Figure 5.2).

Figure 5.2 Retail prices of maize meal

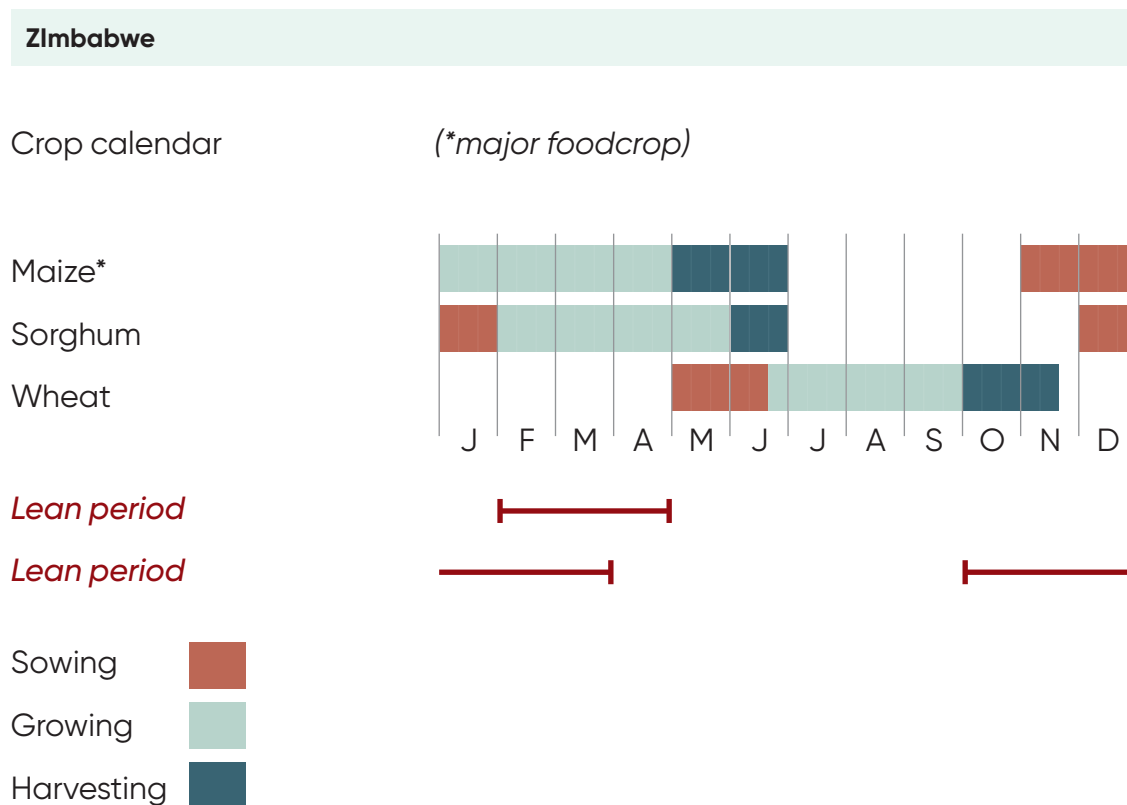
US Dollars per kg



Source: © FAO/GIEWS Food Price Monitoring and Analysis Tool (2017).

It seems, then, that stock feed production as a value chain upgrading option would be a pertinent line of enquiry for further research. The maize-cropping calendar is focused on activities in January–June, with income recognised in May–July (see Figure 5.3). Poultry production is all year round and cattle pen fattening usually takes place around June–September and net gain per beast can be as much as double (FAO 2017).

Figure 5.3 Retail prices of maize meal



Source: © FAO/GIEWS Food Price Monitoring and Analysis Tool (2017).

Some considerations are the competitiveness of space, which market actors dominate which segments of the market, and which shares of the market farmers might effectively penetrate. For example, if the national feed brands are expensive in rural locations due to the small volumes and high distribution costs, can locally produced alternatives compete in this space effectively? A consideration is that the feed formulations may be subject to intellectual property rights and may not be readily available.

Table 5.1 Summary of the challenges associated with stock feed production as a value chain upgrading strategy

	Financial	Economic	Skills gap	Market	Political/ systemic
Heavy investment for small-scalers (dehullers, milling machine, mixers)	X				
Access to stock feed recipes (may be proprietary)					X
Skills and knowledge to produce stock feeds			X		
Business and marketing skills to bring the stock feeds to market			X		
Backward and forward market linkages associated with bringing the stock feeds to market				X	

Source: Author's own.

Although there are challenges associated with this strategy, a quick analysis of the barriers (Table 5.1) reveals that they are largely technical skills, financial gaps, and market-based issues which are relatively easier to influence than the political economy challenges identified in Table 4.1.

This strategy should not be seen as a miracle solution as it may not necessarily address the issue of food security and nutrition. However, an argument could be made that this strategy feeds into production and growth narratives such that small-scalers should increase production so that they will be better able to serve markets and better off in turn (Johnston and Mellor 1961). Agroecological alternatives would also serve farmers and the environment better in the long term, resulting in more resilient livelihoods (Altieri 2002). Empirical evidence shows that high-value livestock such as cattle often fall into the hands of males in households and that women tend to make decisions than benefit all more equitably. As such, cattle pen fattening may not result in improved livelihoods. Poultry production *could* address the food security and nutrition aspect of this nexus, but only as part of a wider programme promoting access to poultry as a protein source, otherwise the production narrative and market forces are likely to prevail.

What Viable Value Chain Upgrading Options are Open to Small-Scale Grain Farmers in Zimbabwe?

The implementation model of a solution could be as important as the solution. Humphrey and Schmitz (2002) analyse the merits of clusters versus value chains in terms of their governance structures and what it means for upgrading. They assert that clusters can foster:

- Strong local governance characterised by cooperation between stakeholders and sharing of risk;
- Promotion of incremental upgrading and diffusion of innovation within the cluster through 'local innovation centres'; and,
- Emphasis on collective efficiency within the cluster, rather than competition between firms.

Perhaps 'stock feed clusters' are a model worth investigating as a means for smallholders to reach economies of scale, increasing collective bargaining power to access equipment, finance, inputs, and markets. A potentially scalable example is an Australian Aid Programme project called Integrating Crops and Livestock for Improved Food Security and Livelihoods in Rural Zimbabwe (ZimCLIFS), which was working from 2012–17 to 'strengthen synergies in crop–livestock farming systems in four districts of Zimbabwe' (ILRI n.d.). The project was funded by the Australian Aid Programme through the Australian Centre for International Agricultural Research (ACIAR) and was implemented by the International Livestock Research Institute (lead agency) in collaboration with the International Maize and Wheat Improvement Center; the International Crops Research Institute for the Semi-Arid Tropics; Australia's Commonwealth, Scientific and Industrial Research Organisation Ecosystem Sciences; the University of Queensland; Zimbabwean NGOs – Community Technology Development Organization and Cluster Agricultural Development Services; and several departments within the Zimbabwe Ministry of Agriculture, Mechanization and Irrigation Development (ACIAR n.d.).

The ZimCLIFS project implemented Innovation Platforms in dryland areas as a way of channelling technologies, leveraging local extension channels, and introducing fodder crops for pen fattening cattle, and provided knowledge on planting and utilising *mucuna* as a fodder crop. This shows how this type of intervention could provide the forward linkages for other farmers to crowd in and begin to produce the fodder crops to feed the value chain and/or the livestock to offtake the feed.

The results of this project included farmers entering into livestock production because they had access to feed and also one farmer converting an engine into a crop residue chopper.

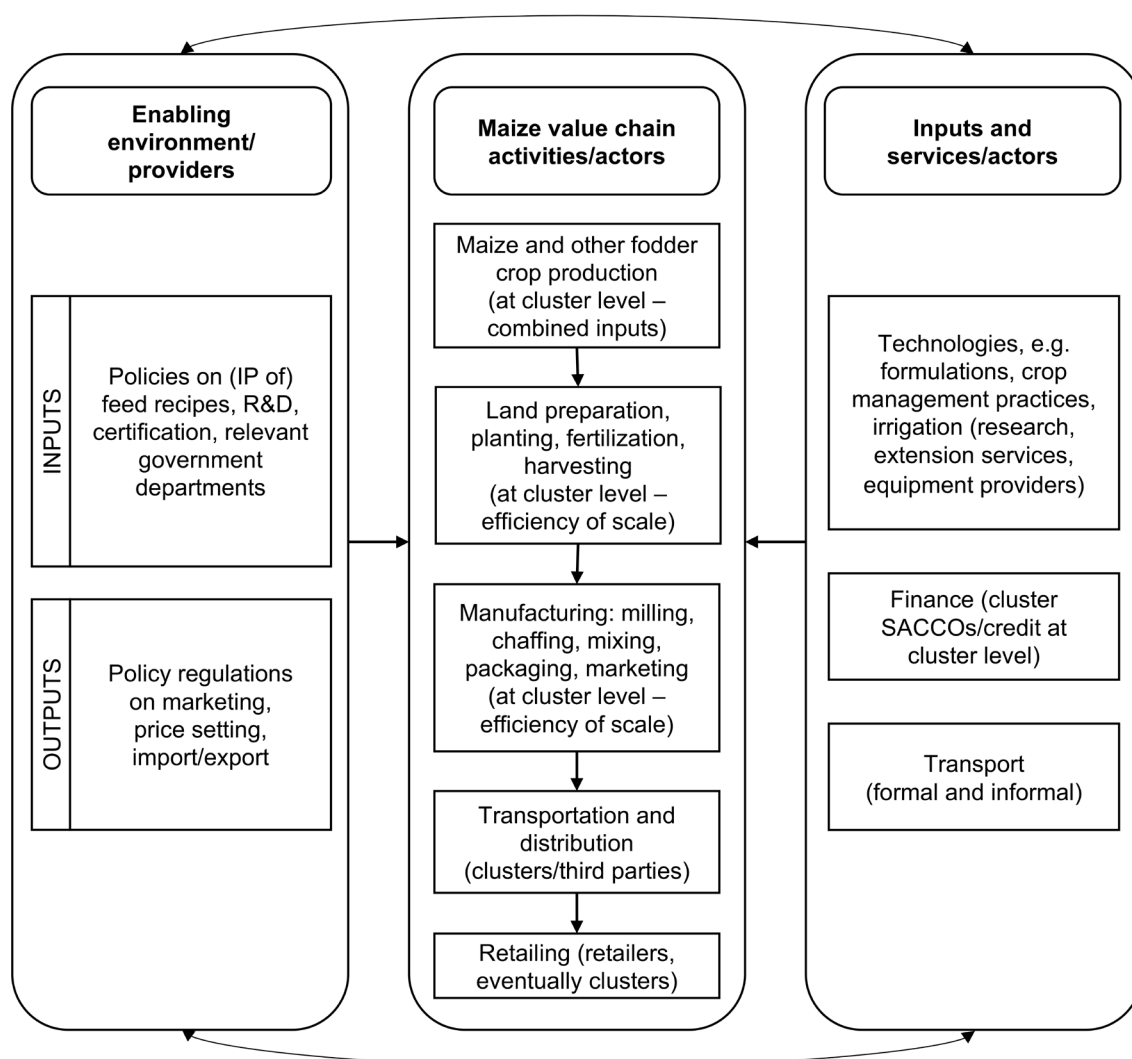
Some additional benefits of this extended maize value chain model are that it creates the backward linkages for other nutritional crops such as soya, which it can rationally be assumed will reach diets. The clusters model can leverage existing structures such as village savings and credit cooperatives

What Viable Value Chain Upgrading Options are Open to Small-Scale Grain Farmers in Zimbabwe?

(SACCOs), capitalising on pre-existing trust in the networks and formalising their activities. Economies of scale are more likely to be recognised and volumes of feed could reach semi-commercial or commercial scale.

Figure 5.4 indicates what a 'stock feed cluster' might look like.

Figure 5.4 Stock feed/extended maize value chain



Note: IP = intellectual property. Source: Author's own.

Some considerations crucial to the success of this model are cluster governance and incentives for individual members, which is contentious in many contexts. Lessons should be learned from existing local structures and cultural leaders and they should be acknowledged and integrated appropriately. Surety of land tenure and availability of expansion land to produce fodder crops should be considered.

6. Conclusion

A value chain governance analysis has revealed that Zimbabwean maize farmers are commodity suppliers in a captive value chain, which puts some constraints on the meaningful upgrading options available to them. Any maize value chain upgrading strategy needs to take into account the challenges presented by the prevailing complex political and economic context of Zimbabwe, which farmers do not have the authority to influence. Upgrading options that result in an end product of raw maize means that the government-run GMB will be the sole market for that output, resulting in the same value chain governance conditions. As such, extending the value chain and entering into secondary processing is the strategy most likely to result in farmers being better able to withstand macroeconomic shocks.

Producing a secondary product is, in effect, asking small-scale farmers to become business proprietors. Inputs such as training, finance, and equipment are required to successfully implement such product lines and smallholders may face particular challenges in accessing these due to socioeconomic status, financial and geographical barriers, and specific disadvantages associated with gender, disability, and age.

Additionally, backward linkages for inputs such as fodder crops and nutrients for stock feed production may not be readily accessible to small-scalers. Likely barriers in terms of the forward linkages and market access to offtake the product might include poor physical and non-physical infrastructure for distribution and sales, and challenges in negotiating contractual arrangements, for example.

Creating and sustaining external linkages are key to the success of upgrading strategies and lessons can be learned from Latin American examples (Giuliani, Rabellotti and Van Dijk 2005). Being able to reliably satisfy the markets for new product lines and good relationships with market actors will be key to remaining competitive in their markets. Forming or utilising existing structures to form clusters could provide a buffer to some of these start-up barriers. These clusters could, for example, provide access to a bigger and more diverse skillset, labour sources, combine collateral to access finance, and negotiate supplier agreements.

These local clusters have three significant advantages over national clusters:

- **Intimate knowledge of local market dynamics, preferences, and buying habits:** for example, what quantities farmers prefer to buy stock feed in, at which times of the year;

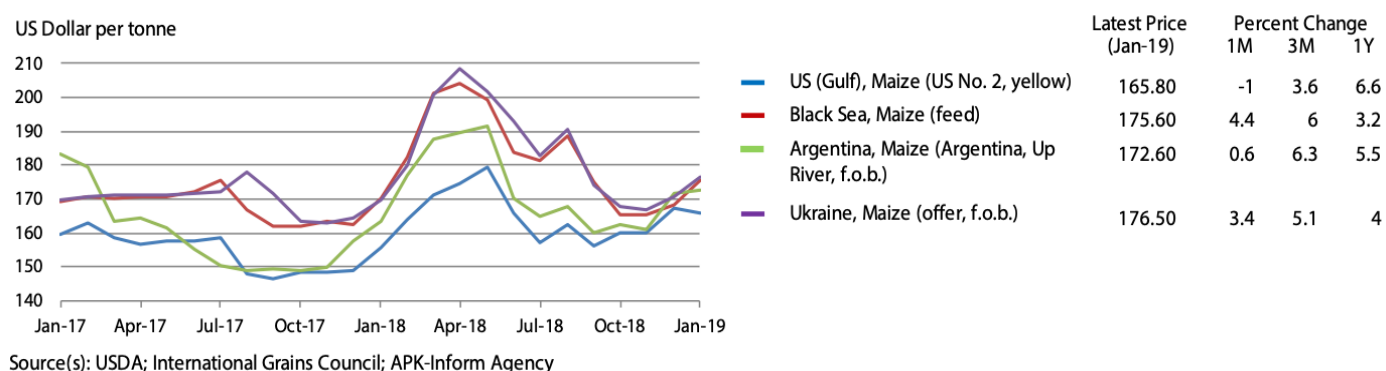
What Viable Value Chain Upgrading Options are Open to Small-Scale Grain Farmers in Zimbabwe?

- **Better and cheaper access to locally produced ingredients:** for example, fodder crops such as soya might be grown locally, or even by a sub-cluster;
- **Network trust:** the clusters are locally embedded, trusted agents operating in areas where reputation and trust is crucial to business success.

In summary, these clusters will face barriers to entry in addition to any common start-up issues such as internal governance challenges and learning to create strong external linkages, but if they can be overcome, the model and size of the opportunity seems promising.

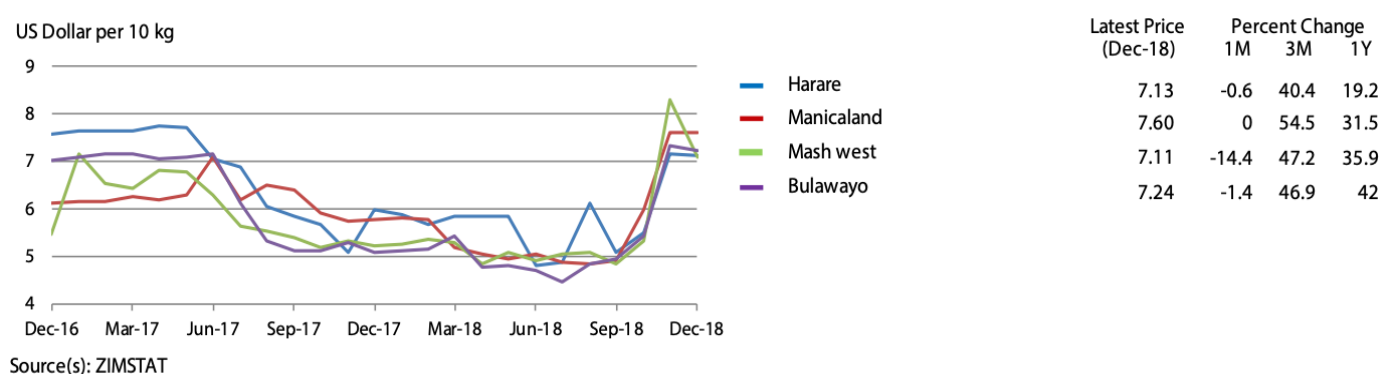
Annexe A

Figure A1 International maize prices



Source: © FAO (2019), **CC BY-NC-SA 3.0 IGO**.

Figure A2 Retail prices of maize meal in Zimbabwe



Source: © FAO (2019), **CC BY-NC-SA 3.0 IGO**.

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Political Economy, Motivation, and Impact of South–South Cooperation: Brazil's Agriculture Development Cooperation with Africa

Shohei Murayama

1. Introduction and background

The emergence of 'new powers' or 'rising states', such as China and Brazil, has dramatically changed the power dynamics in today's global society (Narlikar 2010; Cooper and Alexandroff 2010). Being active as both partners and donors now, these emerging economies have increased their influence and presence in international development aid discourse over recent years. This means that they are no longer a mere recipient of aid, but have become a significant provider of foreign development aid (Mawdsley 2012a).

The tendency of emerging donors has caused growing debate among researchers over foreign aid policies, ideologies, and governance regimes (*ibid.*). On the one hand, critics are concerned that all the efforts made by traditional donors for poverty reduction, aid effectiveness, and good governance may be undermined, because of the increasing number of new actors and their lack of transparency and different approaches to development (Zimmermann and Smith 2011; Manning 2006). In other words, emerging donors are seen as posing a threat to the hegemony of the Organisation for Economic Co-operation and Development (OECD) Development Assistance Committee¹ (DAC) donors, among which are not China or Brazil. Some of them are even called 'rogue donors' since their approaches to aid appear to only serve their own interests but not benefit poorer recipient countries (Naím 2007). Therefore, their engagements can also be viewed as a new form of colonialism, in that those efforts are directed to resource exploitation and/or new business opportunities for the aid providers, leading to over-indebtedness and dependencies on the side of the recipients (Scoones, Cabral and Tugendhat 2013).

On the other hand, other researchers more positively interpret this fracturing of the Western-dominated aid paradigm. Sato *et al.* (2010a, 2010b) argue that emerging donors and development partners offer recipient countries not just wider options of finance and aid, but also new development models and approaches to economic growth. These alternatives can be more suitable for the betterment of society and productivity improvement in developing country contexts, while rebalancing the skewed global power dynamics at the same time.

Thus, recipients can learn the ways in which emerging donors have transformed themselves into growing economies from their first-hand experience (Scoones *et al.* 2013).

The latter perspective, or the new modality of development cooperation that stresses the idea of 'sharing' between developing countries, in stark contrast to the OECD-DAC's 'giving' model, came to be referred to as South–South

1 The DAC currently consists of 30 member countries that are assessed by the following criteria: (1) the existence of appropriate strategies, policies and institutional frameworks that ensure capacity to deliver a development cooperation programme, (2) an accepted measure of effort, and (3) the existence of a system of performance monitoring and evaluation' (OECD 2019).

Cooperation (SSC) (UNOSSC 2019a). In 2011, traditional and non-traditional donors gathered at the High Level Forum on Aid Effectiveness (HLF4) in Busan, South Korea as equal aid providers for the first time, to discuss and align the direction of aid provision. This event demonstrated the changing geopolitics of the world by admitting that SSC has increasingly been playing a significant role in development aid and, therefore, that development finance should be more broadly considered (Glennie 2011; Scoones *et al.* 2013).

However, scholars still carefully see the situation and question whether these new actors offer a new paradigm to development aid debates. Mawdsley (2012a: 2) argues that the reality will be extremely complex – as emerging donors and partners have different histories and adopt diverse ideologies as well as practices, there will be ‘a variety of direct and indirect impacts, for better and worse, on the lives and livelihoods of poorer people and poorer countries around the world’. Amanor (2013) also claims that while SSC practices appear to be conceived as an innovative development concept, each of them is rather a culmination of historical processes that are based on a particular political economy.

Therefore, it is essential to carefully examine the political, social, and cultural background and the political economy that forms such practices, while asking how interventions are framed and whose interests are served (Scoones *et al.* 2013, 2016).

With this in mind, this paper then seeks to explore the following questions:

1. What is the political economy that frames SSC practices of emerging donors?
2. What motivations do emerging donors have for those practices?
3. What are the impacts of SSC on both recipients and providers?

In order to answer these questions, this work focuses on Brazil's agriculture development cooperation with Africa. As will be mentioned later, Brazil seeks to be in stark contrast to the conventional Western aid community, and approach Southern peers by appealing to its affinity for Africa. In particular, Brazil's technical cooperation with Africa in agriculture has been drawing much attention from researchers (e.g. Scoones *et al.* 2013; Amanor 2013; Cabral *et al.* 2013; Chichava *et al.* 2013). As such, illuminating lessons can be learnt from studying the case. In reviewing the literature, Section 2 outlines the basic concepts of SSC in comparison with North–South Cooperation (NSC). Section 3 examines the political economy that frames Brazil's policy on SSC with Africa that has recently been gaining momentum. Section 4 then explores the motivation behind Brazil's particular focus on technical cooperation in agriculture as well as the dualistic contradictions that it entails. Lastly, Section 5 discusses the impacts of Brazil's SSC practices in Africa on both sides as the concluding part of this paper.

2. Concepts of SSC

The United Nations Office for South–South Cooperation (UNOSSC 2019b) defines SSC as ‘a broad framework of collaboration among countries of the South in the political, economic, social, cultural, environmental and technical domains’. Being formed on such a basis as a bilateral, regional, intraregional, or interregional scheme, SSC can function as a multi-directional platform where developing country participants share knowledge, skills, expertise, and resources with each other to achieve their development goals (*ibid.*). In 2009, the United Nations General Assembly announced the SSC Guiding Principles, which consist of five strands – demand driven, respect for national sovereignty, political and macroeconomic non-conditionality, spirit of sharing (solidarity), and mutual benefit – as illustrated in Table 2.1 (UNGA 2009). The principles can be interpreted as a manifestation of solidarity among Southern countries for their national wellbeing as well as collective self-reliance, which has been growing year by year. According to the United Nations Conference on Trade and Development (UNCTAD) (2018), South–South trade increased from US\$0.6tn in 1995 to US\$4tn in 2016. In the same period, the share of South–South trade in developing countries’ total exports rose from 42 per cent to 57 per cent, resulting in 25 per cent of the world’s total trade in 2016 (*ibid.*).

Table 2.1 South–South Cooperation Guiding Principles

1	Demand driven	Decision-making in consultation with partner, but not by imposition Partner, rather than provider, and recipient
2	Respect for national sovereignty	Both partner and recipient initiate, organise, and manage activities Interdependence, not ‘new dependencies’
3	Political and macroeconomic non-conditionality	Non-interference in domestic affairs Non-conditionality
4	Spirit of sharing (solidarity)	Absence of leaders in development cooperation Spirit of sharing through capacity building and technology transfer
5	Mutual benefit	Promote mutual benefit and reject unequal dependent relationship Create higher level of capability and economic opportunity for partners

Source: Author’s own, based on UNGA (2009).

Meanwhile, UNCCS (2017) describes the structural difference between SSC and conventional NSC as being that SSC is based on a spirit of 'mutual benefit' in contrast to NSC's focus on 'giving'. More precisely, while NSC regards development cooperation as strategy-based assistance for a specific social sector (e.g. education, health care, governance), SSC largely considers it as demand-driven investment in a productive project (e.g. infrastructure construction). In addition, NSC strictly separates assistance from non-official practices, whereas SSC can combine multiple instruments of assistance. And importantly, although NSC imposes policy conditionality on the recipients as a precondition for aid provision, SSC does not (see Table 2.2).

Table 2.2 Differences between South–South Cooperation and North–South Cooperation

	South–South Cooperation	North–South Cooperation
Approach	Development investment: emphasis on cooperation as investment for mutual benefit and solidarity	Development assistance: emphasis on cooperation as aid/assistance
Relationship with other flows	Blending with non-concessional flows, hybrid instruments	Greater separation of development assistance from non-concessional and non-official flows
Modality	For a specific purpose (project aid)	For a specific sector (programme aid)
Sectoral focus	Emphasis on, but not limited to, infrastructure and productive sector	Emphasis on, but not limited to, social sectors and governance
Identification of priorities	Request-based: senior officials articulate specific projects for cooperation through high-level dialogue	Strategy-based: national development strategy outlines priority areas for donors, built up from technical discussions
Policy conditionality	Largely avoided	Largely practised

Source: UNCCS (2017: 20), reproduced with permission.

Further, Mawdsley (2012b) analyses SSC practices by drawing on the gift theory originally proposed by Marcel Mauss (1990). The theory explains that the performed gift should come out in a voluntary, disinterested, and free manner, even if it is to make a promise to return the favour in future. Through the lens of this theory, Mawdsley (2012b: 263) examines claims by emerging actors that their development cooperation activities are not derived from hierarchical mindsets and logics that traditional Western aid entails. The author then suggests that SSC is constructed and embodied around four

key claims as Table 2.3 shows: (1) assertion of a shared 'developing country' identity; (2) expertise in appropriate development; (3) rejection of hierarchical 'donor–recipient' relations; and (4) insistence on mutual opportunity (*ibid.*).

Table 2.3 Claims made by Southern development cooperation actors

1	Shared 'developing country' identity	Colonial exploitation and post-colonial inequality Consequent present vulnerability to uneven neoliberal globalisation
2	Expertise in appropriate development	Shared experience, developing status, and geographical commonalities Specifically appropriate approaches and technologies
3	Rejection of 'donor–recipient' relations	Clear rejection of hierarchical relations Articulation of the principles of respect, sovereignty, and non-interference
4	Insistence on mutual opportunity	Win–win outcomes Reciprocal opportunities

Source: Mawdsley (2012b).

Apparently, these claims can contribute to reciprocal impacts, by underlining the horizontal nature of SSC and making a stark contrast to the ways in which Western donors provide development aid. However, as Scoones *et al.* (2013, 2016) and Amanor (2013) highlight, the political economy as well as the background that frames emerging donors' practices needs to be carefully examined. A specific case of SSC schemes will be studied and discussed in the following sections.

3. Brazil's SSC with Africa

Africa has been increasingly a key partner of Brazilian development cooperation. Given the history that its SSC policy is traditionally rooted in the Latin American region, Brazil is a relatively new development aid actor in Africa as contrasted with China (Amanor 2013). Brazil's SSC with Africa was accelerated particularly by former President Lula da Silva's² 'solidarity diplomacy', including his frequent visits to the continent during the 2000s (Cabral *et al.* 2013). His intimacy with Africa contributed to not only the expansion of Brazilian embassies, but also the setting up of a variety of technical cooperation programmes as well as credit schemes across the continent (Amanor 2013). As a result, although at smaller scale than China, Brazil traded with Africa with 400 per cent growth between 2002 and 2010, reaching US\$20.6m in 2010 (*ibid.*).

Brazil seeks to highlight the stark contrast between its own stance and the conventional Western aid discourse through empathic narratives and social imaginaries (Cabral *et al.* 2013). To legitimate its development cooperation strategies for Africa, Brazil stresses similarities between the two, its recent technical and research successes, and the wider extent to which those technologies can be transferred (Amanor 2013; Shankland and Gonçalves 2016). Abdenur (2015) also explains that the Brazilian government has put emphasis on solidarity, in that Brazil as a former colony is culturally and historically bonded with Africa, and compatibility, in that Brazil can share its first-hand experiences in solving development challenges that have much in common with those of Africa. In other words, Brazil can share more suitable approaches to development problems that are drawn from Brazil's own history, which in turn represents both 'a moral obligation in South–South relations and a factor underpinning the country's political legitimacy in Africa' (Cabral and Shankland 2013: 5). Thus, Brazil purposefully differentiates its attitude towards development cooperation with Africa from that of the traditional aid community with its broad historical colonial relations.

Although Brazil ostensibly accentuates morality in its development cooperation policy, there is no doubt that behind the policy are its own geopolitical strategies and economic self-interests, as is the case with other aid actors, whether conventional or emerging (Soares De Lima and Hirst 2006; Costa Vaz and Inoue 2007). Yet, Brazil's political emphasis on solidarity can help to realise both altruism and reciprocity in diplomatic ties with Southern counterparts including Africa (Cabral *et al.* 2013). This political stance contributes to serving Brazil's self-interests in economic growth and geopolitics as well as

gaining firm support from cooperation partners that enables the Latin American giant to have more power and influence over the global governance. Particularly given Africa's rich resource endowments and relatively open political stance on the engagements of emerging donors, it is no wonder that Brazilian businesses increasingly see the continent as an attractive destination for investment (*ibid.*).

4. SSC in Agriculture

Stressing its ecological similarities with Africa, such as the land and climate, Brazil focuses on technical cooperation in agriculture. The claim that Brazil's approaches to agriculture development are appropriate for Africa is underpinned by the idea that the African savanna has a range of similar characteristics to those of the central Brazilian Cerrado belt (Cabral *et al.* 2013; Shankland and Gonçalves 2016). Therefore, the technologies and knowledge that have contributed to altering the previously unproductive Cerrado into one of the world's most productive agricultural zones can also be applied to the African savanna (*ibid.*). Between 2003 and 2010, agriculture was the largest sector of Brazil's technical cooperation with Africa, accounting for 26 per cent (Cabral and Shankland 2013). While Portuguese-speaking countries such as Mozambique are still the main technical cooperation partners, new beneficiaries, such as Algeria and the Democratic Republic of Congo, are joining the group and reflecting the spreading of Brazil's diplomatic network in Africa (*ibid.*). Thus, agriculture has been the key sector of Brazilian technical cooperation with Africa.

Scoones *et al.* (2013: 4–6) analyse the pragmatic reasons why emerging donors, especially Brazil (and China), see agriculture as central to their SSC schemes in Africa from five different dimensions, which are: (1) ecological similarities, (2) the availability of agricultural land, (3) business opportunities (lower costs of land and labour, growing demand for agricultural produce, etc.), (4) the wider effects of investment (in infrastructure, finance, research, etc.), and (5) an emphasis on large-scale agriculture. Regarding the last dimension, African countries are more likely to be interested in larger-scale, mechanised agriculture over smallholder farming which has been losing prominence mainly due to policy neglect (*ibid.*). Also, this tendency towards large-scale farming is backed by private investment, soft loans, modern equipment, and technical support from Brazil (*ibid.*). Meanwhile, Africa wants to achieve food sovereignty and enhance farming technology as well as crops, and thus, Brazil's commercial interests in agriculture and Africa's needs seem to match very well.

4.1 Dualism

However, Brazil's technical cooperation practices in Africa have also reflected the country's domestic political agendas. To simplify it, there are two antagonistic political strands in Brazilian agriculture and rural development (Cabral *et al.* 2013). On the one hand, the Ministry of Agriculture, Livestock and Food Supply mostly supports larger-scale commercial farmers: it

promotes and supports agribusiness activities that pursue diverse capital-intensive forms of commercial agriculture. On the other hand, the Ministry of Agrarian Development supports small-scale family farming: it pushes the national strategy for rural and social development in poorer areas and then runs programmes that provide technical support and credit for small-scale farmers. This political division between the two major parties has hindered a new policy framework that supports groups of farmers who can fill the gap between agribusiness and family farming (*ibid.*).

Such a polarised political structure within Brazil has caused a disorganised segmentation of technical cooperation practices in Africa. There is no coherent framework or clear direction for Brazilian agriculture development programmes (Cabral and Shankland 2013). As mentioned in the SSC Guiding Principles above, the claims of 'demand driven' and 'non- conditionality' may justify Brazil's fragmented cooperation schemes. However, there are as many as over 20 Brazilian agricultural institutions operating in Africa that directly engage in technical cooperation activities. While these actors provide solutions and address a range of technical challenges, their individual views and approaches are framed by different political concerns and conflicting interests. This in turn leads to haphazard practices between different institutions: some are committed to large-scale agribusiness and capital-intensive commercial farming programmes such as ProSAVANA,³ whereas others are engaged in small-scale family farms by leveraging the use of farming equipment and machinery such as the More Food Africa programme⁴ (Cabral *et al.* 2013). Such contradictions then bring about controversy over which development model to privilege, involving both Brazilian and African civil society actors (*ibid.*).

5. Discussion and conclusion

The last question of this paper is explored here: what are the impacts of SSC on both the provider and recipient side? As mentioned, two major agricultural development models – agribusiness and family farming – coexist in Brazil's cooperation schemes for Africa. If this coexistence is to be positively interpreted as pluralistic, Africa can reap the complementarity and variety of both models and address the conflicting debates over agricultural production scale, small versus large. This will then help to serve Africa's interests: enhanced food sovereignty as well as diversified farming technology, and subsequent overall development. However, if the dualism is to be construed as dichotomous or antagonistic, such political division as that which Brazil has been faced with might be replicated in an African context as well. Political imbalance may lead to an unjust distribution of resources and support between commercial farmers and smallholders, aggravating underdevelopment and poverty in rural areas. While the Brazilian government claims that both strands are essential to Brazil's agriculture and rural development, coordinating mechanisms across the two antagonistic groups have yet to come into being (Cabral and Shankland 2013; Pierri 2013; Scoones *et al.* 2013).

The current situation seems to be moving towards uncertainty and complexity. Cabral and Shankland (2013) point out that Brazil's current focus of cooperation practices in Africa lies in technological modernisation and increasing productivity rather than supporting small-scale farming and rural development, while dismissing its own domestic policy debates about agriculture development. This tendency may undermine conventional alternative models, such as bottom-up participation or pro-poor development, on which Western aid actors have long put emphasis (*ibid.*).

Meanwhile, Brazilian advocates of alternative ideologies, particularly of small-scale family farming, have been triggered to rally and challenge increasingly dominant commercial models, forming alliances with African civil society organisations (Cabral *et al.* 2013). For example, La Via Campesina, a global movement network for peasants' rights, supports the union of Brazilian and African civil society groups and fights over the land grab by the ProSAVANA programme in Mozambique. The organisation condemns the dominant stakeholders (the governments of Brazil, Mozambique, and Japan) for the ways in which they have framed and implemented the programme and also excluded the local stakeholders (La Via Campesina 2012; Chichava *et al.* 2013). Such disorder appears to be reflecting Brazil's optimism about the power of technology, over-confidence in the transferability of its own experiences in transforming the Cerrado and

the neglect of local African contexts. In this sense, Brazil's development cooperation practices in Africa do not seem to have succeeded in being in such stark contrast to traditional Western aid discourse.

The rhetoric of SSC sounds plausible, yet, as Mawdsley (2012a) argues, the reality may well be more complex. Cabral and Shankland (2013) point out that the growing pace at which Brazil's presence in international development aid has expanded does not match the degree to which the country has developed its own capacity as an aid provider. By stressing the sharing of experiences, Brazil has neglected to develop research and practical skills to replicate successful development models to other contexts (*ibid.*). But this cannot be a justification for being in stark contrast to the Western aid community. Brazil's agriculture development cooperation with Africa will continue to be framed in complicated processes through which actors on both sides, including governments, business owners, farmers, and civil society groups, interact with each other– the consequences of which, however, are yet to be seen.

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